

# REPORT OF THE PROCEEDINGS

OF THE

Northumberland and Durham

# MEDICAL SOCIETY.

---

---

SESSION 1877-78.

---

---

NEWCASTLE-UPON-TYNE :

PRINTED BY M. AND M. W. LAMBERT, 50, GREY STREET.

1878.

## OFFICERS FOR THE SESSION 1877-78.

---

PRESIDENT.

G. B. MORGAN.

VICE-PRESIDENTS.

L. ARMSTRONG, M.D.

S. W. BROADBENT.

M. BURNUP, M.D.

J. HAWTHORN.

SECRETARY.

BYROM BRAMWELL, M.D.

COMMITTEE.

H. E. ARMSTRONG.

W. C. ARNISON, M.D.

C. CARR.

J. S. DENHAM, M.D.

J. W. EASTWOOD, M.D.

J. FRAIN, M.D.

G. H. HUME, M.D.

F. PAGE, M.D.

G. H. PHILIPSON, M.D.

## LIST OF MEMBERS.

---

<p>Adamson, James, M.D., Hetton-le-Hole  Aitcheson, J., M.B., Wallsend  Allen, W. C., Willington  Anderson, Robert, M.D., Cramlington  Anderson, Edw. C., M.B., Tow Law  Annandale, T., Edinburgh  Armstrong, Luke, M.D., Clayton Street  Armstrong, H. E., Graingerville  Armstrong, Joseph F., South Shields  Arnison, W. C., M.D., Nor'mberland St.  Arundell, Shirley, Gateshead  Atkinson, J. I., Wylam  Banning, R. J., M.D., Gateshead  Barkus, B., M.D., Gateshead  Barron, James, Sunderland  Barron, T. W., M.B., Westgate Road  Baumgartner, J. R., Westgate Road  Beamish, Robt. T., M.D., Blanchland  Bell, A., Eldon Square  Bernard, G., Silksworth  Blackett, W. C., Durham  Blandford, J. W., Coxhoe  Blumer, Luke, M.D., Sunderland  Blumer, W. Percy, Sunderland  Bolton, Andrew, M.D., Westgate Road  Bolton, George, Sunderland  Bradley, M. M., M.B., Jarrow  Bramwell, John W., M.D., Tynemouth  Bramwell, J. B., M.D., Tynemouth  Bramwell, Byrom, M.D., Osborne Ter.  Broadbent, Samuel W., South Hetton  Broadbent, L. S., M.D., Bamborough  Brown, W. J., M.B., Coxlodge  Brumell, M., Morpeth  Budge, J. Tait, Jarrow  Burnup, M., M.D., Derwent Place  Buttercase, Robert, M.B., Dudley  Calcott, James F., Sedgefield  Campbell, Robert, Westgate Road  Carr, C., Blackett Street  Clarke, John T., Felling  Cockeroft, G. E., Hurworth  Cook, R. F., M.D., Gateshead  Davis, J., Sunderland  Davis, R., jun., Low Fell  Davison, R. S., Newburn  Denham, J. S., M.D., South Shields  Dixon, W. H., M.D., Sunderland  Dixon, J. D., Infirmary  Dodd, T. A. H., Bentinck Villas</p>	<p>Dodd, Thomas A., Westgate Road  Douglas, Mordey, Sunderland  Douglass, George, M.D., Gateshead  Drummond, D. D., M.D., North'nd St.  Eastwood, J. W., M.D., Dinsdale Park  Ellis, R., Rye Hill  Embleton, D., M.D., Eldon Square  Fennell, Theodore, Washington  Fenwick, John C. J., M.D., Durham  Fielden, S., Shildon  Fleming, J. M., M.D., Clayton Street  Foote, C. N., M.D., Sunderland  Foss, R. W., M.D., Stockton-on-Tees  Fothergill, S., Haswell  Fothergill, J. R., M.D., Darlington  Frair, J., M.D., South Shields  Galloway, Walter, Wrekenton  Gammage, R. G., Sunderland  Gowans, James, M.B.  Gowans, William, South Shields  Gibb, C. J., M.D., Westgate Road  Gibson, C., M.D., Eldon Square  Hardcastle, N., Clayton Street  Hawthorn, J., Portland Place  Heath, G. Y., M.D., Westgate Road  Hind, Henry, Stockton-on-Tees  Hope, J., Eldon Square  Hopgood, T. F., Sunderland  Houseman, J., M.D., Jesmond Road  Hume, Geo. H., M.D., Westgate Road  Hunter, W. L., M.B., Castle Eden  Huntley, R. H., M.D., Jarrow  Hutchinson, V., M.D., Bp. Auckland  I'Anson, W., Cumberland Row  Jackson, E., Darlington  Jackson, D., M.D., Hexham  Jeaffreson, C. S., Hood Street  Jepson, Edward, Durham  Jobson, J., Bishop Auckland  Kay, W. T., Gateshead  Kilburn, W. B., West Auckland  Legat, Andrew, M.D., South Shields  Lightfoot, R. T., Northumberland St.  Linton, Ralph, Chester-le-Street  Lownds, J. R., Osborne Road  Lynn, Robert, M.D., Cumberland Row  Macaulay, John, M.D., Rye Hill  Mackay, Alexander, Crook  Maclachlan, Alex., M.B., Higham Place  Maclagan, J. M., M.D., Riding Mill</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Macrae, John, Gateshead	Shiell, W. R., Chester-le-Street
Maling, E. A., Sunderland	Skrimshire, F. W., Morpeth
McBean, Samuel, Portland Place	Smith, R. Ayre, M.D., Sunderland
McDiarmid, J., M.B., Coll. of Medicine	Smith, James, Westmorland Terrace
McDowall, T. W., M.D., Morpeth	Smith, James, M.B., Ryton
McGowan, J. Stewart, Durham	Spear, John, South Shields
Manford, F. W., Osborne Terrace	Stephens, T., North Shields
Maynard, John C., Bishop Auckland	Stewart, Duncan, Hexham
Mearns, William, Gateshead	Sutherland, John R., West Rainton
Miller, J., Eldon Square	Taylor, John W., M.B., Gateshead
Morgan, G. B., Sunderland	Tennant, G., M.B., Westmorland Terr.
Monteith, J. M., M.B., Dispensary	Tindle, J. G., North Shields
Murphy, James, M.D., Sunderland	Thornhill, J., Bulman Village
Nesham, T. C., M.D., Nor'mberland St.	Walker, Allen, Seaton Burn
Newcombe, F. W., M.D., Gateshead	Ward, H. D., M.D., Blyth
Newton, H. W., Northumberland St.	Welford, Geo. E., M.B., Sunderland
Newton, R. C., Percy Street	Wickham, R. H. B., Coxlodge
O'Brien, John L., M.B., Sunderland	Wicks, W. C., M.D., Park Parade
O'Hanlen, J. C., Tudhoe Grange	Wilkinson, Auburn, Tynemouth
Page, F., M.D., Saville Row	Williamson, G. E., Infirmary
Peart, Robert S., M.D., North Shields	Wilson, Adam, Pleasant Row
Philipson, G. H., M.D., Eldon Square	Wilson, C., Cullercoats
Ransom, Fred., M.B., Sunderland	Wilson, James, Sunderland
Rayne, S. W., St. Mary's Place	Wilson, R. H., M.D., Gateshead
Renton, W. N., M.D., Shotley Bridge	Wilson, Robert, M.D., Alnwick
Ridley, John H. N., Gateshead	Wilson, Samuel, Westoe
Robson, James, South Shields	Wilson, Thomas, Wallsend
Robson, R. N., Durham	Wilson, W. T., Marlborough Crescent
Rowell, George, M.D.	Winship, W. L., Percy Street
Russell, J., Percy Street	Young, Ralph, M.D., New Bridge St.
Scotland, Thos., M.B., Regent Terrace	Yeld, H. J., M.D., Sunderland

## HONORARY MEMBER.

T. M. Greenhow, M.D., Roundhay, Leeds.

# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

---

THE annual meeting of the Northumberland and Durham Medical Society was held in the Library of the Infirmary, on Thursday, September 27th, 1877, Mr. G. B. Morgan, President, in the chair.

The following gentlemen were proposed for election as members :

James Gowans, M.B., C.M., Newcastle.

Charles N. Foote, M.D., M.R.C.S., L.S.A., Sunderland.

John L. O'Brien, M.B., C.M., Sunderland.

The SECRETARY read the annual report, as follows :—

## REPORT OF COMMITTEE.

Your Committee have again the pleasure of being able to lay before you a satisfactory statement.

The session 1876-77 was in every way successful. Nineteen papers were read, fifty pathological specimens were exhibited, and fifteen patients were introduced at the meetings.

The total number of members is now 162. During the past year twenty-one new members were elected ; one died ; eight resigned. The names of five were struck off for the non-payment of subscriptions.

The income, including a balance brought forward of £26 4s. 11d., was £105 13s. 11d. The expenditure was £80 15s. 1d., leaving a balance in hand of £24 18s. 1d. The unpaid subscriptions amount to £10.

The conjoint excursion of the members of the South Durham and Cleveland and Northumberland and Durham Medical Societies to Barnard Castle was a novel and highly enjoyable feature in the year's proceedings. Next year the meeting will be held in the county of Northumberland.

In consequence of the large amount of business brought before the Society, it was determined last year that the hour of meeting should be half-past six instead of seven o'clock. Notwithstanding this alteration, it was found impossible to complete the programme on any single occasion during the past session. Your Committee would, therefore, recommend the following additional bye-laws :—

1st. That the maximum time for the reading of any paper be twenty minutes.

2nd. That the maximum time for the description of any pathological specimen be five minutes.

Your Committee also recommend that bye-law No. 6 be rescinded.

(Bye-law No. 6 is as follows :—That the pathological specimens be verbally and briefly described.)

Your Committee beg to draw attention to the inconvenience which arises from non-punctual attendance, and hope that in future members will endeavour to be present at the commencement of the proceedings.

The following is a list of papers read and of specimens exhibited during the past session :—

#### LIST OF PAPERS.

Mr. H. E. ARMSTRONG.—1. An outbreak of “charbon” in Newcastle. 2. Second paper on “Charbon.”

Dr. BYROM BRAMWELL—1. Notes of two cases of renal tumour. 2. Cases of aneurism of the aorta. 3. “Progressive pernicious anæmia,” with cases.

Mr. J. T. CLARKE—Analysis of one thousand births.

Dr. EASTWOOD—On the importance of legislation for habitual drunkards.

Dr. EMBLETON—1. Case of recto-vesical fistula in the male. 2. Case of psoriasis generalis.

Dr. GIBSON—Chlorosis.

Dr. HEATH—Ligature of the subclavian artery in its third part for axillary aneurism.

Dr. MACLACHLAN—Retro-uterine hæmatocele.

Mr. MORGAN—Notes of a case in which paralysis of certain nerves, and ultimately death, seemed due to the use of a hair-dye containing lead.

Dr. MURPHY—Case of uterus septus and vagina septa.

Dr. NEWCOMBE—Notes of a case of syphilitic hemiplegia. 2. Cases of hæmophilia.

Dr. PAGE—Cancer of the breast of seventeen years' standing.

Dr. PHILIPSON—Cervico-occipital neuralgia. 2. Two cases of aneurism of the abdominal aorta—one cured by iodide of potassium, the other by compression.

## LIST OF PATHOLOGICAL SPECIMENS.

Mr. H. E. ARMSTRONG.—1. Heart, spleen, stomach, duodenum, and blood from cases of charbonous fever in cattle. 2. Skin of a pig which had died of "Red Soldier." 3. Bony deposit in dura mater.

Dr. ARNISON.—1. Cystic tumour of the thigh. 2. Enchondroma of testis. 3. Microscopical specimen of cholesterine.

Dr. BRADLEY.—Anencephalous foetus.

Dr. BYROM BRAMWELL.—1. Aneurism of thoracic aorta. 2. Blood of leucocythæmia. 3. Aneurisms on terminal branches of the pulmonary artery in the walls of cavities. 4. Spleen of leucocythæmia. 5. Tumour of brain.

Mr. BROADBENT.—Large tumour of the bladder.

Dr. ELLIS.—Fibroid tumour of the uterus. 2, Foetal monstrosity from the pig.

Dr. EMBLETON.—Diseased aortic valves.

Dr. HEATH.—1. Lower jaw from boy æt. 6. 2. Upper jaw from girl æt. 18. 3. Hard palate from man æt. 65. 4. Case of lithotripsy instruments. 5. Carcinoma of mamma and axillary glands. 6. Two phosphatic calculi. 7. Excised joint ends of humerus radius and ulna. 8. Cystic tumour of neck. 9. Results of lithotomy since January, 1875 (thirteen stones).

Dr. HUME.—1. Two vesical calculi. 2. Loose cartilage from knee joint.

Dr. JONES.—Young foetus.

Dr. MACLACHLAN.—1. Fluid from a retro-uterine hæmatocele. 2. Ovarian abscess.

Mr. MEARNS.—1. Anencephalous foetus. 2. Stomach from a case of arsenical poisoning.

Mr. MORGAN.—1. Necrosed tibia. 2. Cast of dislocation of the radius backwards. 3. Casts of three cases of diseased bursæ patellæ. 4. Parts from a case of unsuccessful tracheotomy.

Dr. PAGE.—1. Cerebellum and spinal cord from cerebro-spinal meningitis. 2. Perforating ulcer of stomach. 3. Large mammary tumour. 4. Outline drawing forms for clinical case books.

Dr. PHILIPSON.—1. Diseased heart. 2. Pneumonic lung. 3. Waxy liver, spleen, and kidneys. 4. Tubercular ulceration of larynx and trachæa.—5. Suppurating ovarian cyst. 6. Aneurism of pulmonary artery in a phthisical cavity.

Dr. SMITH.—Large vesical calculus.

Dr. WICKS.—Gall stones.

Mr. WILLIAMSON.—Laryngeal polypus.

Mr. S. WILSON.—Brain from a case of apoplexy.

#### LIST OF PATIENTS.

Dr. ARMSTRONG—Case of urinary fistulæ. 2. Case of fracture of the spine.

Dr. ARNISON—Case of fractured patella, and apparatus for treating the same.

Dr. BYROM BRAMWELL—1. Case of varicose enlargement of the abdominal veins. 2. Case of leucocythæmia. 3. Case of pseudo-hypertrophic paralysis.

Dr. HEATH—1. Case of excision of the upper jaw. 2. Malformation of knee joints in a child. 3. Two cases of webbed fingers.

Dr. HUME—Case of ichthyosis.

Mr. MORGAN—Patient who had recovered from ruptured popliteal and diffuse femoral aneurisms.

Dr. PHILIPSON—Case of aneurism of the abdominal aorta, cured by pressure.

Mr. S. WILSON—1. Case of compound comminuted fracture of skull. 2. Case of compound comminuted fracture of both thigh bones.

On the motion of the PRESIDENT, seconded by H. E. ARMSTRONG, the report was unanimously adopted.

On the motion of the PRESIDENT, seconded by Dr. BURNUP, Mr. Dodd was re-appointed paid secretary for the ensuing year.

Dr. ANDERSON and Mr. HAWTHORN were appointed scrutineers of the ballot papers for the election of officers, and reported as follows:—*President*: G. B. Morgan. *Vice-Presidents*: L. Armstrong, M.D., S. W. Broadbent, M. Burnup, M.D., J. Hawthorn. *Secretary*: Byrom Bramwell, M.D. *Committee*: H. E. Armstrong, W. C. Arnison, M.D., C. Carr, J. S. Denham, M.D., J. W. Eastwood, M.D., J. Frain, M.D., G. H. Hume, M.D., F. Page, M.D., G. H. Philipson, M.D.

On the motion of the PRESIDENT, a vote of thanks was unanimously awarded to the scrutineers.

# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

---

THE first monthly meeting was held in the Library of the Newcastle-on-Tyne Infirmary, on Thursday, October 11th, 1877, Mr. Morgan, president, in the chair.

On the president taking the chair, Dr. EMBLETON said : Before the ordinary business commences, I beg, in the name of the Society, to congratulate you, Sir, on your taking your seat a second time as president. I am sure I express the general feeling of the meeting, and I wish it were larger, when I say that we have been very much pleased with the manner in which you conducted the business during the past session. We all know the great interest you take in the Society, and we are fortunate in again having you as our president. I beg, therefore, to congratulate you.

Mr. S. W. BROADBENT said : I have much pleasure in endorsing what Dr. Embleton has just so well said, and in congratulating you, Mr. President, on your re-appointment.

The PRESIDENT heartily thanked Dr. Embleton and Mr. Broadbent for their very kind remarks, and the Society for having re-elected him as president. He directed the attention of members to the fact that the business was not completed on the programme on any night during the past session. With a view to remedy this state of matters, the time allowed for the exhibition of specimens, and for the reading of papers, had been limited. He hoped members would attend punctually, and allow the business to commence at half-past six o'clock.

The following gentlemen were elected members of the society:—

James Gowans, M.B., C.M., Newcastle.

Charles N. Foote, M.D., M.R.C.S., L.S.A., Sunderland.

John L. O'Brien, M.B., C.M., Sunderland.

The following gentlemen were proposed for election:—

R. Knox Tait, L.R.C.S. and L.R.C.P. (Edin.), North Shields.

Mark Malvin, M.R.C.S., and L.R.C.P., Tynemouth.

P. H. Watson, M.R.C.S., Sunderland.

James Croudace, L.R.C.S., Morpeth Asylum.

Peter Alexander, L.R.C.P. and S. (Ed.), Earsdon.

William Clarkson, L.R.C.P., L.F.P., and S. (Glas.), Morpeth.

## PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG presented the following :—

*Return of Admissions to, and deaths at, the Newcastle Fever Hospital from March to September inclusive, 1877.*

	ADMISSIONS.								DEATHS.		
	March.	April.	May.	June.	July.	August.	September.	Total.	April.	May.	Total.
Typhus .....	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever .....	...	1	2	2	...	...	...	5	1*	1†	2
Scarlet Fever .....	...	...	...	...	...	5	...	5	...	...	...
Smallpox .....	...	...	...	...	...	1	...	1	...	...	...
Pneumonia .....	...	1	...	...	...	...	...	1	1†	...	1
Totals .....	...	2	2	2	...	6	...	12	2	1	3

\* Died on 5th day after admission—no history. † Died on 3rd day after admission.

‡ Died four hours after admission.

Mr. ARMSTRONG observed that no previous return for the corresponding period, during the past five years, showed so small a number of cases, and said: As the relation between disease and natural phenomena is always worthy of remark, and has often been thought to be close, it is perhaps more than usually interesting to consider the present unusual absence of epidemics together with the coldness, dampness, and deficiency of fruit and other crops.

Dr. EMBLETON said rheumatism had been very prevalent. The general complaint he heard was that there was very little to do.

Mr. HAWTHORN said he had several cases of measles and whooping cough under treatment; he agreed with Dr. Embleton that rheumatism had been unusually prevalent.

### PATHOLOGICAL SPECIMENS.

Dr. ARMSTRONG showed—1. Tape worm with head; 2. A large mass of varicose veins excised from the leg of a female under antiseptic precautions. The disease had existed for fifteen years. The patient left the hospital a month after the operation, perfectly well.

Dr. EMBLETON showed a photograph of a case of varicose veins.

Mr. J. D. DIXON showed an hypertrophied clitoris, which he had removed from a prostitute, aged 22. It was of two years' growth, the growth at first being slow, but during the last two months more rapid. Until about three months before the removal she had frequent erections. There was a distinct history of self-pollution. On examining the clitoris, before its removal, the bulbous portion at the end was found to be devoid of all sensation, but the neck portion was very sensitive. The size of the clitoris was such that, when it was in position, it completely covered the orifices of the vagina and rectum.

Dr. BYROM BRAMWELL exhibited an occluded abdominal aorta, and said :—At the December meeting, last year, I brought before the Society some cases of aneurism, and amongst others a very interesting case, in which the abdominal aorta was obstructed, and the collateral circulation in the anterior abdominal wall beautifully visible. The patient, you may remember, was introduced at the termination of the meeting and examined by the members. I was of opinion that the obstruction of the aorta was caused by a clot projecting into the vessel from an aneurismal cavity.

The patient left the Infirmary on December 31st, 1876, very much benefitted by the treatment—rest and full doses of iodide of potassium. I heard nothing more of him until March 22nd, when he returned much worse. The pain in the back, which was such a prominent feature in the case, was very much more severe, the shortness of breath increased. There was, too, a certain degree of emaciation.

The same treatment was adopted as before, but this time it failed to give relief, and on going up to the patient on the morning of May 9th I found him dead. He had been spoken to a few minutes previously, and was thought by the nurse and others in the ward to be asleep.

The *post mortem* was made 24 hours after death, the body having been previously injected with a coloured solution of plaster of Paris. It is unnecessary to describe to you in detail the various appearances met with, or to name to you the vessels which formed the very beautiful collateral circulation. Suffice it to say that collateral circulation was, if I may be allowed to use the term, normal.

The abdominal aorta below the origin of the superior mesenteric artery was completely plugged by a firm old clot. At the point of origin of the renals, and the superior mesenteric, the canal of the vessel was expanded, forming an aneurism about the size of a small egg. The cavity of the aneurism was filled with dense laminated clot, and the external layer of this clot was continuous with the clot in the obstructed portion of the vessel.

I show you, too, the right kidney from the same patient. It

presents a very large cicatricial depression on its surface, the vessel going to this portion of the kidney is plugged by a firm clot, which is well seen in the specimen. This condition of the kidney explains an attack of suppression of urine and albumenurea which at the time was difficult to account for.

---

### EXHIBITION OF PATIENTS.

The PRESIDENT showed a patient, in whom a large portion of the anterior wall of the right chest was torn away, and said: This patient whom I have the pleasure of showing to the Society this evening is an instance of recovery from an injury so terrible that, on his admission into the Sunderland Infirmary, recovery seemed hopeless. His temperature chart, which I here show, marks his temperature during the four months that have elapsed; the highest point is 103, and that was reached on two occasions only—one two days after admission, and again a month afterwards when the exploration of broken ribs occurred. His pulse was steady at 100, and his respirations 28. His treatment consisted in the maintenance of absolute repose, in keeping him under the influence of opium, and careful dressing of the wound with boracic ointment, and syringing with carbolic lotion. The right lung was certainly collapsed at one time, but, as you will see, it has recovered itself, and is nearly as competent as its fellow. Humanly speaking, his recovery is due to the assiduous care of the “sister” under whose care he was, and to Dr. Ransom, the senior house surgeon of our Infirmary. The notes of the case are as follows:—

Henry Bocking, 28, admitted to the Sunderland Infirmary on July 16, 1877. About half-an-hour before admission had been caught in the cog wheel of a travelling crane in Clark’s works, and crushed against the machinery. On admission, conscious, but collapsed. On right side of thorax the skin, facia, and muscle, from the wall below clavicle to sixth rib, and from midsternum to post axillary line, were completely torn away, except that, at the upper portion, some part of pectoralis major remained; the intercostals were exposed; and, at several points, the periosteum was torn from ribs. The fifth and sixth ribs were fractured, just outside the cartilage, the fifth comminuted, so that a portion, about 1½-inch long, was twisted outwards, showing an opening in the thoracic wall, through which the lung could be seen acting. On finger examination, the wound did not pass into cavity of pleura, but into a sac formed by costal pleura torn away from rib, and, at lower part, surface of diaphragm and liver beneath could be distinctly felt. No hæmoptysis. Next day, too ill to examine.

Wound dressed with boracic ointment. Brandy and opium.

Next morning. Temperature, 102·6 ; Resp., 40 ; troublesome short cough.

Wound slowly cleansed ; cavity between pleura and chest wall was kept syringed out.

August 5. Slight hæmoptysis.

August 24. Connecting portion of fifth and sixth ribs came away.

September 17. Temperature had come down to normal, where it has since remained.

Dressed all through with boracic ointment.

Dr. GIBSON showed one patient who had suffered from empyema, and was cured by free incision into the chest, with antiseptic precautions ; and related the history and *post-mortem* facts of another case, which had been similarly treated.

J. B., æt. 16 years, had suffered an attack of pleurisy eight months before admission into the Infirmary. Three months after the attack a small abscess formed over the fifth rib of the right side, near its costal cartilage. The abscess matured and burst, and a sinus was formed from which purulent matter was discharged, without intermission, up to the time of his admission. When admitted, this lad was thin and feeble and sallow in his complexion. The sinus over the fifth rib was constantly discharging an inoffensive pus. The sinus could be explored by a probe for a short distance only—not absolutely into the chest, and the aspirator needle failed to reach the pus cavity. The chest showed flattening and diminution of size on the right side, and was not visibly enlarged by inspiration. The ribs were found lying closely together, and in some places they were imbricated. The percussion note of the left side of the chest was everywhere clear and pronounced ; the respiratory sounds of the left lung being somewhat exaggerated, but otherwise normal. The percussion of the right side of the chest gave a distinct resonance above the third rib, and a feeble respiratory murmur was heard over the same portion of the chest. Below the third rib the percussion note was quite dead, and the respiratory sounds were absent. There was a very slight cough, and a little mucus was from time to time expectorated. There was no complaint of dyspnoea nor of pain. The sleep and the appetite were good. Medical treatment utterly failed in this case, and on September 2nd a free incision under the carbolic acid spray was made into the chest between the fourth and fifth ribs, a little to the outside of the mammary line. A large quantity of purulent matter at once escaped from the chest. A drainage tube was inserted well into the chest, and antiseptic dressing was applied to the wound. From the time of the operation the patient never had a bad symptom. He gained

flesh and strength daily. The discharge gradually diminished in quantity and consistence; and on the 2nd of October—just one month from the time of the operation—the drainage tube was finally removed. To-day the wound is quite healed, and the health is perfect.

The second case was that of J. N., æt. 18 years, who had suffered from pleuritic effusion eight months before admission into the Infirmary. He was much emaciated and very feeble at the time of his admission. A sinus which communicated with the cavity of the chest was found over the sternum on a level with the fourth costal cartilage; and another sinus was found over the eleventh rib of the left side, about 3 inches from the spines of the vertebræ. The left chest was dull on percussion throughout, and no respiratory murmur could be detected in any part of it. The right chest was abnormally resonant in percussion, and the respiratory sounds were proportionately loud. No other abnormal condition was detected in the lungs. The heart was not perceptibly diseased. Medical treatment again utterly failed in effecting relief. The patient was gradually losing flesh and strength, and a persistent hectic affected him. On August 18th, a free incision was made into his chest between the eleventh and twelfth ribs, about four inches from the vertebral spine, and forthwith about three pints of foetid pus flowed from the left pleural cavity. Some hæmorrhage accompanied the discharge, probably from a wounded intercostal artery. After the bleeding was effectually stayed a drainage tube was passed into the chest, and the wound was dressed antiseptically as in the former case. On the evening of the day of the operation the thermometer stood at  $100^{\circ}$ , and rose to  $100.5^{\circ}$  on the following morning. It fell next morning (the 20th) to  $99.5^{\circ}$ , and on the 21st it rose to  $104.5^{\circ}$ . The pulse was now 115, and the respirations 34 in the minute, and the patient complained of chilliness over his body, and of pain in his left leg and foot. On the 22nd there was little discharge from the chest; the leg and foot were much swollen and oedematous, and swelling appeared in the upper and fore part of the thigh and lower part of the iliac region, where severe pain was felt upon motion and upon pressure. But there was no redness on any part of the surface, and fluctuation could not be detected. Colliquative sweating set in and steadily continued; the emaciation advanced; purging recurred fitfully; the pain in the region of Poupart's ligament gradually diminished; the discharge from the chest almost ceased. But the strength of the patient could hold out no longer, and he died on September 14th, just one month after the operation. A necropsy was made 19 hours after death. The body was very much emaciated. On opening the chest, the pleura of the left side was found to be very greatly thickened, and firmly adherent to the walls of the chest. It was

buff-coloured, and contained one or two ounces of semi-solid pus. With this exception, the large left pleural cavity contained only air. The lung itself of this side was bound down to the chest by the closely adherent thickened pleura. It contained no air, and weighed 13 ounces. No tubercles were found in it, nor any inflammation of its interior tissues. The right lung was quite healthy, as was the right pleura. The lung weighed  $16\frac{1}{2}$  ounces. The kidneys were pale-coloured, somewhat different in size and weight, and contained several hæmorrhagic blocks. The supra-renal capsules were quite normal. The spleen was large, soft, and pulpy, and, like the kidneys, contained hæmorrhagic blocks. It weighed  $19\frac{1}{2}$  ounces. The heart was healthy, excepting that its mitral valves were covered on their ventricular surfaces with vegetations. In the region of Poupart's ligament a large quantity of well-formed pus was found, which surrounded the external iliac artery up to its origin.

Dr. GIBSON observed that these cases were interesting, particularly at the present time, when attention is being so largely directed to the etiology and to the treatment of pleuritic effusions. Probably all or nearly all pleuritic effusions are at first fibrino-serous, and admit of cure by medical treatment. Certainly the agency of paracentesis in these cases is very often disastrous. It is equally certain that transformation of the fibrino-serous fluid has from time to time followed the operation, and empyema has become established. Paracentesis of the chest, then, is hardly a justifiable operation in cases of serous pleuritic effusions before decided efforts have been made to effect its absorption by medicinal appliances, unless very urgent symptoms have arisen by its pressure upon the lungs or heart or great blood vessels. On the other hand, it may be accepted that transformation of the pus of empyema and its absorption are so exceedingly rare, if they ever occur, as to deserve a place only in the records of curiosities in medical experience. Nature might possibly effect a cure in this way, or the pleuritic abscess might burst externally or into the bronchial tubes, and gradual cure of the empyema might result. But such results cannot be waited for or expected. Drugs, again, are utterly futile in the curative treatment of these cases. The disease tends to death. One known mode of treatment, however, can be recognised as legitimate in empyema, viz., that by paracentesis. Practitioners may effect the operation in different ways, but his observation showed pretty clearly that with antiseptic precautions free incisions may, with remarkably little risk, be made into the chest, and that the removal of the purulent fluid from the pleural cavity may be effected gradually or rapidly according to the requirements of individual cases. In the second case there had been no progress made in filling with solid matter

the space created by the removal of the purulent matter from the pleural cavity. The fibroid tissue of the diseased pleura firmly and persistently compressed the lung of the affected side, and although the thoracic viscera were not dragged over to fill the pleural cavity, nor the ribs forced downwards and inwards to aid in this process, still there was, as Reindfleisch expresses it, no Torricellian vacuum formed. The cavity was filled with air—absolutely untainted air. It is a remark of Fracntzel that the rapid production of purulent matter in cases of hydrothorax is exceedingly difficult of explanation. He regards it as possible that an over-development of lymph corpuscles in the spleen and elsewhere may take place to account for it; and that the colourless corpuscles which have reached the fibrino-serous fluid may undergo division. Now, it deserves recognition that in the microscopical examination the spleen was found exceedingly large, and if it follows that increase of size here implies increase of functional activity during life, then the case reported distinctly supports Fracntzel's hypothesis. It may be, however, that the altered organic conditions of the pleura itself may be abundantly sufficient to effect the transformation.

---

## SURGICAL NOTES.—EXTERNAL URETHROTOMY.

By G. B. MORGAN.

THE external division of the male urethra may either be done as an operation considered to be expedient, or it may be imperatively demanded to save life.

In 1844, Mr. Syme communicated to the *Edinburgh Medical Journal* a paper in which he described a form of urethral stricture, in which, although you may succeed in passing a very small instrument through it, you do not make any progress in getting it dilated. Constitutional disturbance, with rigors and suppuration, follows the introduction of an instrument, or you find that after dilatation the dense tissue re-contracts, and your patient, after weeks of treatment, is still suffering as at first. In these cases Mr. Syme proposed to divide the stricture through the perineum, having first introduced a slender-grooved staff as a guide upon which to cut. This operation, in suitable cases, and with sedulous care afterwards, gives very satisfactory results, and is not difficult of performance. But sometimes we meet with cases where it is impossible to pass the very smallest instrument—where the urine is distilled drop by drop either through the urethra or some collateral fistula, and even that only after the most agonising expulsive efforts, where the swollen face, protruding eye-ball, and conjunctiva stained with blood, show how violent and how sustained the effort has been, while, during sleep, the stinking urine drains from the over-distended bladder, soaking the bed and making life miserable. Early in these cases, which are often cases of traumatic stricture, extravasion sometimes occurs; but later, when they have become chronic, it is wonderful the amount of hydraulic pressure which the tissues become capable of sustaining.

Now, it is in these cases that operative interference is so imperatively demanded, and is, at the same time, so difficult of performance. If you cannot get a guide into the bladder, you must dissect out the urethra behind the stricture without a guide, and no one who has not himself done the operation can estimate its great difficulty. Sir Henry Thompson says:—"In reference to perineal section—or the operation without a guide—the best that can be said of it is that it is a hazardous proceeding. No surgeon should entertain the idea of performing it, except after thoroughly assuring himself that the stricture cannot be rendered permeable to instruments, and so made amenable to treatment in some other way. In a few cases the operation is performed successfully, but in most there can be little doubt that the route of the stricture itself is not followed, and that the knife makes a new channel through adjacent and often unsound tissues, very

inadequate to perform subsequently the functions of a urethra ; and in many instances the attempt to make a channel to the bladder has wholly failed, and the patient has been removed from the table unrelieved ; and in not a few cases the result has been fatal."

Mr. Coulson, of London, was, I believe, the first to devise the following operation. which is now generally practised. It has been improved upon by Dr. Gouley, of New York, and attention was drawn to it last year in the pages of the *British Medical Journal* by Mr. Teevan, of London :—

The patient, having had the rectum cleared and the perineum shaved, is to be put into the lithotomy position, and placed under chloroform. A straight staff with a groove running to within half an inch of the end, and terminating in a button, is passed down to the stricture. The urethra is opened upon this groove, not upon the point of the staff. The staff is then made to protrude, and the button hitched in the upper end of wound, so as to enable the assistant to hold up the urethra by it. The edges of the opened canal are held apart by toothed forceps, and the operator proceeds to search in the cul de sac for the mouth of the stricture by means of very fine whalebone probes. These should be olive-tipped, but there is difficulty in getting them properly made in England. Having found a passage, this fine silver tube is passed over the whalebone, and if the whalebone has been in the bladder, urine will flow through the tube ; the stricture is then divided upwards with a tenotome directed by the slit in the tube, and then one-half of an elastic catheter is passed into the bladder upon the tube, and the other half having been passed through the meatus, the two parts of the instrument are united by a screw joint, and the patient is removed to bed.

The advantages claimed for this operation are :—

1. The greater chance of finding an entrance to the stricture with a fine olive-tipped bougie applied close to the face of the stricture.
2. The demonstrating that the bougie is really in bladder by passing over it a fine silver tube and drawing off the urine, and so saving the mortification of laying open a false passage.
3. The metal tube serves as a guide for the passage of a catheter over it.
4. Diminishing the risk by dividing the stricture subcutaneously instead of enlarging the original wound.

No doubt these advantages are great, and the operation should always be attempted in preference to perineal section, but the two cases which I lay before the Society show that sometimes it is impossible to find a passage through the stricture. In one case the patient was saved by perineal section, while in the other, success was obtained by utilising a fistulous opening.

Mr. M., aged 43, formerly a mariner, a thick set and strongly built man.

#### HISTORY.

Twenty years ago he fell on board ship and came astride upon a hatchway, the sharp edge striking the perineum with great force; he passed water with great difficulty for some days afterwards, and lost a good deal of blood. The difficulty in making water abated and he returned to work, but four or five months after he was obliged to enter the Dreadnought Hospital with tight stricture. Here an instrument was passed and left in the bladder, but two days afterwards extravasion of urine occurred requiring free incisions for its relief. Some of these incisions have continued as fistulæ ever since, and the urine has come through them as well as through the proper channel. This latter, however, has become less and less; and four years ago, when he was first seen by me, only a very slight moisture was perceptible at the meatus when he attempted to make water. His state then (January, 1874) was one of great suffering; sometimes he would strain for hours until his face was swollen and livid, and the eyes suffused with blood, before a few drops of stinking urine would exude from some of the fistulous openings and give him relief.

The perineum was riddled with openings and scarred with cicatrices; on each side of the anus were the marks of deep incisions; on the under surface of the right thigh were two openings, and three more existed between the anus and scrotum.

Marital intercourse had become so painful that it was unbearable.

The prostrate could be felt much enlarged.

Patient and prolonged attempts were made to pass an instrument through the stricture, but without success; and at this time nothing more was done than administering opium occasionally and directing the frequent use of hip bath.

During the next two years and a half he dragged on a very miserable existence, confined to his room and often to his bed, for he found that the slightest cold made all his sufferings worse. On two occasions during this time it was found necessary to tap the bladder through the rectum with an aspirator needle to relieve his intolerable agony.

In November, 1876, his sufferings had become so great that he became most urgent in his entreaties for something to be done for him, and having explained to him the great risk of the operation, I consented to attempt his relief.

He was prepared as for as lithotomy, and a director passed down to the stricture; upon this the urethra was opened, and most patient attempts made to find any passage through it. These attempts were continued for more than two hours, so unwilling was I to resort to perineal section—that is, dissecting out the

urethra beyond the stricture without a guide—for in his case this operation, always uncertain and difficult, would have been almost impossible from the seamed and scarred state of the perineum. Having failed to enter the stricture, I determined to try if access to the bladder could not be obtained through any of the fistulæ, and to my great relief I was at length able to pass this whalebone guide through an opening to the left of the raphe, and along a torturous passage into the bladder. Upon it I passed the silver director, and freely divided the tissues so that a full-sized instrument could be passed into the bladder. At the time I contemplated a further operation when he had recovered from this prolonged one, but I have found so much reason to be satisfied with what we have gained that I am only too thankful to leave well enough alone. The relief is complete to all his symptoms, and, with the exception of the pain which the passing of these small stones through the new channel has caused, he has had no suffering since the operation. When I felt with the probe that these stones were stuck in the passage, I introduced a seatangle tent, and left it for a few hours, and when it was withdrawn the stone came with the gush of urine.

Coition is no longer painful—the semen coming through the new channel. The character of the urine is no longer bloody and ammoniacal, and he has perfect control over the bladder. Once a fortnight a bougie is passed, as the skin opening has a tendency to close. From the bed-ridden condition of a confirmed invalid, whose every waking hour was one of suffering, he is restored to his business, and to the enjoyment of his life.

Mr. T., aged 60, a master mariner, came to me on July 16th, 1877, complaining of incontinence of urine—his clothes in the day, and his bed in the night, being soaked, while he had the greatest difficulty in micturition. His constant straining had produced hernia of the bowel on the left side.

He has been a man of somewhat dissipated habits, and states that about thirty years ago he remembers having an attack of complete retention, which was only relieved with great difficulty by the passage of an instrument on the third day. Since then there has never been a complete retention, but, year by year, the stream has become smaller, and within the last two years the urine has been voided drop by drop; and stillicidium urinæ has become constant. The character of the secretion is ammoniacal and mixed with glairy mucus. The glands penis has several scars upon it, and one cicatrix occupies the site of the meatus, which it has so narrowed that a No. 5 enters with difficulty. Beyond this, the urethra is narrowed at two points, one about two inches within, and again in front of membranous portion of urethra.

He was confined to bed and placed upon milk diet, with small

dozes of opium, and day after day attempts were made to penetrate the stricture, without, however, any success.

His condition improved somewhat from the rest and restricted diet, and the stillicidium was greatly lessened as the urine became less acrid, but it was found impossible to enter the bladder.

An attempt was made by passing potassa fusa down to the face of the stricture, to overcome it, but this, too, not only failed, but seemed to increase the difficulty of micturition.

On August 30th, he was placed under chloroform, and the operation of Mr. Coulson attempted.

He was prepared as for lithotomy. This director passed to stricture, the urethra opened upon it, and the mouth of the stricture patiently sought for both with these whalebone bougies and also with fine silver probes. For two hours on this the first day, and for a similar time on the day following, these attempts were continued, and were at length with great reluctance abandoned. A day was allowed to intervene, and a third time he was placed under chloroform, and the urethra carefully dissected out, and after some difficulty opened behind the stricture. The latter was then laid open, and this jointed catheter passed into the bladder and out through the meatus.

That was on September 2nd. For a few days a catheter was passed daily, then every second day, then once a week; and now the wound is healed, and he passes for himself a flexible bougie, and makes water in a full stream without pain or difficulty. To use his own words, he is "a new man, and is comfortable for the first time for twenty years."

Dr. ARMSTRONG said: He had listened with great pleasure to the President's very excellent paper. It particularly interested him, for he had at present under his care two very bad cases of urinary fistulæ. Dr. Armstrong then gave some particulars of these cases.

## ANTISEPTIC PRECAUTIONS IN MIDWIFERY PRACTICE.

By F. W. NEWCOMBE, M.D., M.C., M.R.C.S., ENG., &c.

GENTLEMEN,—Dr. Lister's treatment with regard to wounds is now so well known, so much practised, and its benefits so well established, that it seems a little strange obstetricians have not endeavoured to utilize it in their own speciality in a more thoroughly systematic manner.

In the following remarks there is no pretence to bring anything new before the profession, but simply an endeavour to prove that, by a careful adherence to details, the danger of septic influences injuring obstetric cases may be minimized, a large amount of suffering prevented, and some lives saved.

No man attends an ordinary case of midwifery without the fact staring him in the face that, however natural that labour may be, however strong and healthy the woman, young or old, rich or poor, she may still unaccountably fall a victim to blood poisoning, and all the fearful episodes of puerperal complications.

How much more danger, then, is incurred if the labour is one requiring manual or instrumental assistance, or the woman an unhealthy, delicate subject?

Every woman after her confinement is in the same position as a person after a surgical operation, liable to the same dangers, influenced by the same causes, and, if affected by the same miasmas, the resulting lesions having similar terminations.

If a person simply scratches his finger, and exposes the wound to some septic influence, the lymphatics inflame, the glands swell, abscesses form, perhaps gangrene occurs, and probably death; how much more danger, then, would a woman run if, after her confinement, she were exposed accidentally to the same poison? Look at the anatomy of the parts; the vagina, an open drain, down which pours the discharge from a large and exposed vascular surface, every movement of the patient opening the passage, and giving access to the subtle poison germs, or bacteria, which can easily find their way, and locating themselves on the exposed surfaces, produce their specific results.

The veins are so much enlarged in that part of the uterus where the placenta is attached as to gain the name of uterine sinuses.

It is still a moot point whether there be direct vascular communication between the placenta and uterus, but whether the curling arteries terminate in intermediate cells, and the uterine veins begin and return without dividing and sub-dividing in the placenta, or, as Dr. Reid says, that umbilical tufts enter the uterine sinuses, or that there is a process of exosmose and endosmose, there

is no doubt that after the placenta is removed, and unless the uterus thoroughly contracts, or clots form at the orifices, there are open-mouthed blood vessels from which hæmorrhage may take place and jeopardize the life of the patient in as great a degree as if her leg had been amputated and the femoral artery left untied. And even if occlusion takes place, there is still an exposed vascular surface, bare of decidua, and as ready to take on septic action as in a stump after amputation.

It is a matter of doubt to me whether there is such a disease as *idiopathic* puerperal fever, and I have almost come to the conclusion that septic poison is the originator of all puerperal evils. If part of the placenta or a clot be left in the womb after parturition, it will, as a rule, be disintegrated and expelled without any harm to the patient, unless air charged with bacteria is allowed to enter, when decomposition will ensue, absorption and blood poisoning following as a natural sequence.

In a paper read before the Société de Chirurgie, M. Vernueil maintains the opinion that pregnancy and the puerperal state have a special influence in predisposing to suppuration, and relates cases in support of these views.

Churchill says that puerperal fever prevails most during alternations of cold and warm moist weather, the very season when the fermentation of organic matter and the dispersion of poison germs are most likely to take place. He further states that the two epidemic diseases which most commonly prevail at the same time as puerperal fever, are erysipelas and typhus, especially the former, whose presence in surgical hospitals is always indicative of impending puerperal fever. If, then, it is true that we never have an epidemic of erysipelas in any hospital where the antiseptic treatment is thoroughly carried out, why should not our obstetric cases have a similar preventive treatment as our surgical?

In nearly all cases of labour some slight breach of surface occurs, and there is no doubt that the slightest breach of continuity is sufficient, if locally infected, to give rise to all the sequelæ of puerperal complications—nay more, I feel convinced that the mucous membrane itself, if much congested and bruised by the effects of a hard labour, may become the nidus for septic poison if the contaminating material comes in contact with it.

And what are these complications? Fever and inflammation, inflammation of the womb itself, called puerperal hystéritis or metritis, endometritis, peritonitis spreading to the fallopian tubes, ovaries, broad ligament and bowels, inflammation of the veins, phlebitis, phlegmasia dolens, thromboses, plugging of some distant artery causing abscesses in distant localities, inflammation of the uterine lymphatics, pleuritis, pericarditis, arachnitis, enteritis, purulent deposits in muscles or joints.

The lying-in woman is also much more liable to be attacked by any specific fever to which she may be exposed—puerperal, scarlatina, gastro enteric, &c.

Furthermore, our patients often date the commencing trouble of fibroid or ovarian tumours, cancer, retro or ante flexion, &c., to a bad inflammation after child-birth.

The mammary glands are also apt to take on morbid action from septic influences; the milk is deteriorated, and the infant poisoned, either directly from this source, or from infection from contact with the mother. Besides these dangers, we must also consider the number of innocent lives lost by the medical attendants, nurses, &c., carrying the subtle poison in their hands and clothes, and infecting the next obstetric case attended; and knowing the difficulty of removing the taint when once contracted, it behoves every “accoucheur” to do his utmost, on the principle of prevention being better than cure, to hinder its development, and I believe this can be done by care and perseverance in the use of antiseptics.

When we consider that seldom an operation, be it a minor or major one, is now performed without antiseptic precautions—without carefully excluding the access of air to the wound—without surgeons, nurses, &c., carefully disinfecting their hands in carbolic solution—and that these measures have so lessened the danger that operations are now performed at times and places never dreamt of, is it not just that the lying-in woman should have the same immunity from danger accorded to her, and the risk removed of septic poisoning?

It may be said that it is impossible to carry out Mr. Lister's theory *in extenso* in midwifery practice. Granted; but I contend that even its partial adoption in the best way will induce both patients and attendants to use greater care during these times, that cleanliness will be promoted, and a better knowledge of simple sanitary arrangements be disseminated among the people.

Much, of course, depends upon the will of the patient; old prejudices are to be overcome, and the nurses urged to perseverance; and as the latter become better trained and more competent, and the valuable lives of our wives not exposed and left during the most critical period of their lives to the sensibilities of any drunken woman who presumes to earn her living as monthly nurse, I feel confident that the dread which assails our lady patients when the time of their peril draws near—and not without cause—may, in the future, be greatly lessened, and that she will trust herself in the hands of her medical attendants with the confidence of knowing that all the safeguards of science will be used in her behalf.

In considering the routine to be observed on being engaged to attend an obstetric case, the lady should be advised as regards the lying-in chamber, its contents, and her personal attire. The

chamber should be light and airy, and there should be no doubt about its purity ; indeed, I think it is a good plan to stove it out before the confinement with sulphur, for fear that unknown cases of infection may have been treated in it previously ; afterwards the floor, walls, &c , should be thoroughly washed. The mattress had better be left in the room during fumigation, and afterwards, with the bedding, be left exposed to the air for some time. There is nothing so dangerous as for a lying-in woman to be put to bed on a mattress on which some sick person has previously been treated. This matter is always particularly attended to in a well-conducted hospital, and, when neglected, serious results often arise. As an example, I may mention what occurred in an hospital from neglect in this particular. A woman was operated upon for a uterine tumour ; she died from inflammation spreading to the peritoneum. Shortly afterwards another woman occupying the same bed was operated on for a small tumour of the cheek, and did well for four days ; on the fifth she took unaccountably ill and died. On a *post mortem* examination being held, peritonitis was found and blood poisoning. The house surgeon who conducted the examination pricked his finger and died from blood poisoning and erysipelas.

It afterwards transpired that the mattress on which the first woman died, not having been thoroughly aired, infected the second case, who died of peritonitis, although she had no uterine lesion, and the operation on the face having nothing to do with the cause of death. If, then, these germs could cause peritonitis by passing into a healthy uterus and through the fallopian tubes, and I see no other way they could have travelled, it would undoubtedly have been certain death to a lying-in woman had she been confined on that mattress, and I have little doubt that every case of blood poisoning happening after confinement could be traced to some such source. No woman should be confined in a room or on a bed in which an infectious case has previously been treated, and the sooner a more thorough knowledge of this danger is circulated among the people the better. It is difficult for a medical man to be always on the alert ; called perhaps suddenly to a case, the woman in the last throes of labour, everything seemingly clean and right, his whole attention occupied with his patient, how is he to know until the time of action is past and the mischief done that a case of scarlet fever has been treated upon the bed within a short period ? It is too late then to educate the poor victim to a knowledge of her danger.

After the room has been disinfected, all superfluous furniture, woollen articles, curtains, and carpets should be removed. Care should also be taken that no sewer gas can permeate the apartment from the proximity of a sink or water-closet. I don't like even to see a wash-basin with a plug in a bed-chamber, for fear the waste-pipe enters directly into a drain.

The blankets, sheets, &c., should be thoroughly disinfected, and I think every accoucheur should enjoin his patient to procure new diapers to use after her confinement, as these articles, saturated, perhaps, for years with an animal fluid washed and used again and again, cannot be free from taint.

These should be thoroughly steeped in a solution of carbolic acid and dried.

Three or four new sponges well washed in clean water, acidulated with a little hydrochloric acid, should be kept in a jar filled with a solution of carbolic acid, and should be used entirely for washing the external parts after confinement, and, after each ablution, should be thoroughly washed and returned to the jar, no soap or dirt being allowed to come in contact with them.

They go by the name of antiseptic sponges.

With regard to the breasts, I believe that many mammary abscesses are caused by septic poison attacking a chapped nipple, derived either from foul linen or a polluted atmosphere. To prevent this, I should advise the pieces of flannel, &c., used by patients to protect their breasts, and soak up the overflow of milk, which runs out in some cases in great profusion, to be thoroughly soaked after each washing in a solution of carbolic acid.

A bottle of carbolic oil should also be provided, and the surgeon should lubricate his whole hand, and not simply his finger, every time he examines the patient; and, if this is done with regularity, I venture to assert we would not hear such frequent complaints of inability to rid the hands of infection, or of accoucheurs contracting syphilis. In parenthesis, I may mention that a little styptic colloidion applied to any chap or sore on the hand is a good protective, and is not easily washed off, and I think a small bottle should always be included among our "impedimenta."

The nurse should be enjoined to wear clothes of a washable material, and free from infection, and on no account be allowed to attend an obstetric case if her previous engagement was with a person suffering from an infectious disorder.

A large square of gutta-percha sheeting, well washed with carbolised water, should protect the bed during the confinement.

If forceps or other instruments are used they should be previously placed in a solution of carbolic acid.

The antiseptic sponges would be found very useful also in case of post partum hæmorrhage, fastened to the end of a piece of whalebone. What better instrument could there be for first sponging out the clots, and then being saturated with a solution of perchloride of iron, pressed firmly on the bleeding site, at the same time using counter pressure externally, even if the uterus contracted firmly, and the sponge was left *in situ*, being antiseptic, would do no harm, and be expelled probably next day?

And this practice, gentlemen, would be much safer than simply injecting a solution of iron after Dr. Barnes' method, and much less likely to induce sudden death by a venous thrombus blocking up the heart.

During the after treatment, the antiseptic napkins should be frequently changed and vagina sponged. I would even advocate in some cases, where involution of the uterus was not very firm, a syringing out of the uterus itself with a solution of carbolic acid two or three times a day, so as to dislodge any clots or shreds of membrane that may perchance remain. But this operation should be done without force, for fear the injection should enter the fallopian tubes and excite peritonitis.

As a chamber disinfectant, I find terebene useful, blown from a spray apparatus, and it has also a grateful odour.

The temperature of the room should be kept evenly at 65 degs.

In conclusion, gentlemen, I think that by strongly urging our nurses and patients to use and submit to a continued and routine antiseptic treatment, and educating them both by our example and precept, that a widespread knowledge of the danger of infection, and the utility of perfect cleanliness at these times, will be promoted to the benefit of the community and the honour of our profession.

Mr. HAWTHORN said he could not allow Dr. Newcombe's paper to pass without making one or two remarks. Labour was a case of nature, not of disease. It was totally different from an amputation of a limb, and the less it was interfered with the better. He had had a very large experience, having attended more than 2,500 cases, and he did not find that the multitude of precautions recommended by Mr. Newcombe were necessary. He had had very few deaths.

Mr. HENRY E. ARMSTRONG agreed with Dr. Newcombe as to the importance of using precautions against infection in puerperal cases, but thought that opinions as to the disinfectant properties of any particular reagent should be formed with great caution. Absence of infection or spread of disease was not necessarily evidence of the efficacy of any article used as a disinfectant. We were very much in the dark as to disinfection; many of the so-called disinfectants were probably of no use in preventing infectious diseases. Before admitting such disinfectant properties in terebene he would like some proof.

Dr. NEWCOMBE, in reply, said he knew Mr. Hawthorn's success had been great, but he had had some deaths, some of which were probably due to septic causes. These deaths might probably have been prevented had strict antiseptic measures been practised. He himself had had 500 cases, and no death. He used terebene more as a deodoriser than a disinfectant. He did not think there was

the slightest connection between milk fever and apoplexy. Many cases of milk fever were, he thought, due to septic causes.

---

Dr. PAGE then read his paper entitled "Case of large Lympho-Sarcoma successfully removed from the neck of a child." This paper will appear in a future number of the Transactions.

---

## REPORT OF A CASE OF OVARIAN CANCER.

By G. H. PHILIPSON, M.A., M.D., CANTAB.; F.R.C.P., LOND.

PHYSICIAN TO THE NEWCASTLE-UPON-TYNE INFIRMARY, ETC.

RESPECTING the frequency of cancerous disease of the ovary, very conflicting statements are made. Bayle almost questioned its ever occurring. Boivin and Dugès considered it more common than cancer of the mamma. That ovarian cancer is far from being a very rare affection, Walshe is convinced. The tables of Tanchou give a share of 64 deaths among 8,289 to the disease, an idea of the amount to which it proves destructive of life.

Cancerous structure forms in the ovary, as the primary evidence of cancerous disease, as an extension of a similar morbid state in the uterus, or independently, but subsequently to the development of cancer in the uterus, and consecutively to the growth of cancer in distant and unconnected parts.

As an example of the first condition, namely, the primary formation of cancer in the ovary, the following case is instructive.

Mary A., aged 26, married, was admitted into the Newcastle-upon-Tyne Infirmary, under my care, April 12th, 1877.

She stated that for several years she had felt weakly, and had experienced uneasy feelings, and at times a dull aching pain in the lower part of the back. About two years ago she first experienced discomfort in the right side of the abdomen, and subsequently was sensible of enlargement there. The catamenia throughout had been regular, but scanty. She had never conceived.

The abdomen was found to be greatly distended, and measured at the umbilicus forty-one and a half inches. Both legs were œdematous. The right hypochondrium was more prominent than any other part of the abdomen. Upon careful palpation, a solid tumour was recognised three inches to the right of the umbilicus, while at the umbilical the left hypochondriac and hypogastric regions, fluctuation was detected. When the patient was placed upon her back, it was found that there was dulness upon percussion from the ensiform cartilage to the pubes, and from the umbilicus laterally to the flanks, where resonance was discernible. Upon change of position the dulness and resonance were unaltered.

Upon very careful palpation, it was ascertained that there was slight fluctuation between the solid mass and the abdominal wall, and it was distinctly determined that the solid tumour was irregular in outline, posteriorly more than anteriorly. It was found, further, that the fluctuation over the solid tumour was modified by an alteration of the patient's position.

The liver extended up to the right nipple, and in the nipple line measured  $3\frac{1}{2}$  inches. On percussing downwards from the nipple

line, three degrees of dulness were made out, first, that corresponding to the liver, then that over the solid mass, for  $4\frac{1}{2}$  inches, and the third, to the crest of the ilium.

The diagnosis of right ovarian tumour, solid and cystic, was given, together with enlargement of the liver and ascites. That the tumour was ovarian; was diagnosed from the history of the case; the discomfort commencing in the right side; the gradual enlargement there; the fixation of the dulness upon percussion; and the fluctuation upon palpation; and that the tumour, in character, was solid and cystic, was arrived at, from the difference in tone of the dulness, as elicited in the right nipple line, while the belief that fluid was present in the peritoneum, in addition to the cyst, was founded upon the fluctuation being found anterior to the solid tumour, and which fluctuation changed as the position of the patient was altered. It was further surmised that, coupled with the enlargement of the liver, there was a probability that the ovarian disease was malignant in nature.

April 22. A consultation with Mr. Russell, my corresponding surgeon, was held. Mr. Russell coincided in the diagnosis, and the following modes of treatment were reviewed, simple paracentesis, paracentesis and subsequent injection with solution of iodine, and removal of the tumour by operation. Upon the probability of the disease being malignant, the second and third methods of treatment were considered unadvisable, and it was agreed that simple paracentesis was alone admissible. The patient had heard so much of the success of extirpation, that she was quite prepared to submit to the operation, if recommended, and indeed, was unwilling that any less decisive mode of treatment should be employed.

April 23. Mr. Russell introduced the largest needle of the aspirator about two inches to the right and a little above the umbilicus, and withdrew 198 ounces of thin clear fluid of s. g. 1032. The abdomen was then seen to be relaxed, except on the right side, where a large uneven mass could be felt, and which fluctuated. The needle was re-introduced about four inches above the first puncture, and 246 ounces of a dark glutinous fluid was drawn off, of s. g. 1020. It was supposed that the first fluid was from the peritoneum, and the second from the cyst.

The patient progressed favourably. On April 20th the catamenia appeared.

May 5. It was noted that the solidity of the right side of the abdomen extended to the umbilical line, and downwards nearly to the crest of the ilium, while the upper border passed under the costal cartilages.

May 10. She left the hospital and returned to her home.

June 6. The patient was re-admitted. The abdomen, at the umbilicus, measured 45 inches. Both legs were œdematous. In

both groins, enlarged lymphatic glands were felt. The superficial veins over the right side of the chest and abdomen were greatly distended. The liver dulness was made out to be five inches.

July 17. Paracentesis was performed by Mr. G. E. Williamson, senior house surgeon, with the aspirator. At the first puncture, 142 ounces of dark viscid fluid, of s. g. 1020, was obtained, and at the second puncture 147 ounces of dark grumous fluid, of s. g. 1020, was drawn off. It was supposed that two cysts had been punctured.

On July 18th, the patient's condition was favourable, but, on the 21st, signs of thrombosis of the saphenous vein of the left leg became manifest; on the 25th, symptoms of bronchitis, and on August 5th, redness and swelling of the left arm. The patient became more feeble, and died on August 20th. *Sectio cadaveris*, thirty hours after death. The body was much emaciated. The chest presented little that was unhealthy, except that the right pleura was covered with recent lymph. When the parietes of the abdomen were laid open, a quantity of dark fluid escaped, and it was then seen that the right side was occupied by a solid, irregular, nodulated tumour, which extended to within an inch and a-half of the appendix of the ensiform cartilage, and downwards into the true pelvis, and which had displaced the liver upwards, and had compressed the thoracic viscera. The tumour was found to be a growth of the right ovary, and on its anterior surface it was firmly attached, by old adhesions, to the surrounding viscera and abdominal wall. The peritoneum was studded with cancerous nodules, varying in size from that of a millet-seed to that of a pea, and at the part in contact with the tumour was greatly thickened. The tumour, with difficulty, was removed, and it was then found to be composed of two large cysts, superior and inferior, and a solid mass, fully eight inches long, five inches broad, and three and a-half inches thick. Both cysts contained dark, grumous, fluid, of sp. gr. 1020. The solid mass was found to have pressed upon and obstructed the veins coming from the left lower extremity.

The liver was nearly twice as large as normal, from the development throughout its substance of malignant tubera, varying in size from that of a pea to that of a hen's egg. These were globular and were partly inclined to soften down. The hepatic substance was injected, and in some parts had the character of fibrous medullary degeneration.

The spleen was of full size, and contained a recent hæmorrhagic embolus.

The right kidney was firmly adherent to the tumour. The right ureter was obstructed by a cancerous mass, the pelvis being greatly dilated.

The uterus and left ovary were natural.

Upon microscopic examination of the solid tumour, the liver, and the nodules upon the peritoneum, the characters of carcinomatous disease were very marked.

#### REMARKS.

This case presents an illustrative example of one of the malignant forms of ovarian tumour, and shows, in strong light, the morbid tendency which often pervades the whole system when this destructive disease has once displayed itself.

The symptoms were functional in respect of the organ itself, and mechanical in regard to the influence the organ exercises, when enlarged, on adjacent strictures. But there was this peculiarity—the association of the ovarian disease, with enlargement of the liver, and which pointed to the probability of the disease being carcinomatous, and which conjecture was rendered more certain when the lymphatic glands became enlarged.

The period of life, the limitation of the disease to one ovary, the non-implication of the uterus, and the rapid course of events, were points of interest in the etiology.

The treatment throughout was palliative. A case of this kind does not admit of cure, and it is right that this should be impressed upon our minds, seeing how much discomfort and suffering may be added to the necessary grievances of the disease by interference of our art. Whether there had ever, in this case, been a recommendation of the extirpation of the tumour, it is impossible to say, but certainly so much had passed as rendered the patient herself solicitous and anxious that something of the kind should be attempted, and what the result of such a trial would have been cannot be doubted—useless suffering to the patient and disappointment to the operator.

Mr. JEPSON said he had lately made a *post mortem* on the body of a woman, who died of ovarian disease of a malignant character. He had attended the patient during two years of terrible suffering. She had at an early period of the case consulted Mr. Spencer Wells, who refused to operate, thinking the case one of cancer. She then went to Edinburgh, and would have been operated upon had she consented to remain. The tumour was of immense size, very soft and gelatinous in character. A portion of it had been sent to London for microscopic examination, but no report had as yet been received.

# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

---

THE second monthly meeting was held in the Library of the Newcastle-on-Tyne Infirmary, on Thursday, November 8th, 1877, Mr. Morgan, president, in the chair.

The PRESIDENT stated that the Secretary had received letters from Drs. Irvine, Brake, Fawcett, Craig, and Geogheghan (the Medical Officers of H.M. Forces in the district), thanking the members for making them Honorary Members of the Society.

The following gentlemen were elected members of the Society:—

- R. Knox Tait, L.R.C.S. and L.R.C.P. (Edin.), North Shields.
- Charles Gibson, L.R.C.S. and L.R.C.P., Tynemouth.
- Mark Malvin, M.R.C.S., North Shields.
- P. H. Watson, M.R.C.S., Sunderland.
- James Croudace, L.R.C.S., Morpeth Asylum.
- Peter Alexander, L.R.C.P. and S. (Ed.), Earsdon.
- William Clarkson, L.R.C.P., L.F.P., and S. (Glas.), Morpeth.

The following gentleman was proposed for election:—

James Munro, M.D., Barnard Castle.

---

## PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG presented the following:—

*Return of Admissions to, and Deaths at, the Newcastle Fever Hospital during the month of October, 1877.*

	Admitted.				Died.			
Smallpox ... ..	...	...	...	1	...	...	...	—
Scarlet Fever ... ..	...	...	...	4	...	...	...	1
Total ... ..	...	...	...	5	...	...	...	1

And in reply to Dr. Ellis, stated that the case of smallpox had occurred in Prudhoe Street. He was unable to trace its origin.

Dr. ADAM WILSON stated that there were some cases of small-pox at Walker.

## PATHOLOGICAL TRAY.

Dr. PAGE showed—1. A fractured odontoid process, and said : These three upper cervical vertebræ were removed from the body of a middle-aged heavy woman, who was found lying dead on her back upon a stone flagging at the foot of a wall 14 feet high, over which there were signs that she had fallen or been thrown. There were no external marks of violence upon the body, but a patch of ecchymosis, the size of the palm of the hand, was found on the under surface of the scalp over the vertex, and coagulated blood was extravasated into the cellular tissue beneath. The skull was not fractured, but, as will be seen, the odontoid process completely separated at its base from the body of the axis, the orbicular ligament being entire. I think there can be little doubt the woman alighted upon the top of her head, and that death must have been instantaneous.

2. An ovarian tumour, and said : I do not know that there is any feature of much intrinsic interest connected with this ovarian tumour beyond, perhaps, the rapidity with which the woman recovered from whom it was removed. The case is one of four ovariectomies which have been performed within the last few months in the Infirmary ; three of which, I am happy to say, have terminated favourably in succession. Some few years ago three cases of ovariectomy recovered in succession in the Infirmary, and I am glad this, my first operation here, has contributed to the repetition of a result so satisfactory and encouraging. A. B., aged 29 years, was the wife of a labourer in Newcastle. The disease was of two years' standing. She had been delivered of a healthy child six weeks before the operation, and had been once tapped. She measured forty-one inches round the belly, and was thin. For a week she was kept still and quiet in her room, and fed upon a fluid but liberal diet ; the bowels being emptied of all solid matter by means of castor oil and injections. The incision was six inches in length. The cyst, a double one, with but few adhesions. The pedicle was secured with carbolised whip cord, and dropped into the belly. The wound was closed by means of three deep sutures passed through the peritoneum, and three superficial sutures, all of carbolised silk. No drainage tube was used. A piece of protective was interposed between the wound and the dressing, which consisted of a cushion of gauze filled with finely-teased oakum, firmly secured on the belly by means of a four-tailed flannel bandage. The anæsthetic used consisted of a mixture of anhydrous ether and chloroform in equal parts. Upon the evening of the operation the patient's temperature rose to 101, but was never again much above normal. With the exception of some little difficulty in breathing, apparently the result of the ether

inhalation, the patient had literally no symptoms. The wound closed by primary adhesion, and was only once dressed. The day after operation a pint of iced milk was taken by the mouth without any sickness. In nine days patient left her bed, and in five days more was convalescent. The operation was performed under the spray, with all antiseptic precautions, and it is to this method—which I regard as the most important principle introduced into surgery since the adoption of anæsthesia—I mainly attribute—favourable as the case was for operation—the woman's speedy recovery.

The PRESIDENT thought Dr. Page was to be congratulated on the success which had attended his first great operation in the Newcastle Infirmary. The President understood that Mr. Spencer Wells and Dr. Keith did not use antiseptics. Dr. Keith's objection seemed to be that the antiseptic fluid might irritate the peritoneum. Dr. Keith always used a glass drainage tube, and by that means kept the peritoneum dry.

Dr. HEATH, after hearing Dr. Page's case, observed that he believed the antiseptic method had been first systematically carried out in ovariectomy by himself in a case upon which he had operated at North Shields. The tumour removed upon that occasion was very large, the patient having measured 46 inches in girth before the operation. It was one of the specimens he had intended to show that evening, but by some misunderstanding it had not been brought up from the College of Medicine, in whose museum it was. His case had appeared at length in the *British Medical Journal*; he would therefore merely say that by using a steam spray, placed at about 4 feet from the wound, it was enveloped and covered with a fine antiseptic mist, which afforded but little fluid to find its way into the peritoneal cavity, whilst the flannel afterwards employed absorbed any superfluous liquid. It had been suggested that a drainage tube would always be necessary where the antiseptic method was employed, on account of the great secretion the antiseptic liquid would set up from the peritoneum. By using the plan stated above this necessity was avoided, and no drainage tube had been used in his case. The remarkable feature was the smooth, rapid, uninterrupted recovery without fever. This was the more worthy of notice, as the adhesions were extensive between the right curve of the colon and the cyst, so close that here and there portions of the external coat of the cyst were left adhering to the bowel, and in one or two places the peritoneal coat of the bowel was stripped off. Two months after the operation, and when the patient had for some time been well, had resumed her ordinary life, grown stouter, and assumed an altogether healthy appearance, the thickened colon could be distin-

guished in the belly as a firm rounded curved tube. The smooth recovery and absence of untoward symptoms he quite attributed to the antiseptic method; but he could not agree with Dr. Page in crediting this system with the absolute success of this operation, and of those, including Dr. Page's, which had followed, within the walls of the Infirmary, as it must be remembered that several very successful cases of ovariectomy had been performed in the Infirmary at different times before the antiseptic system was devised, Dr. Heath's first case at the Infirmary, a girl of 17, having been operated upon fully fifteen years ago, the patient making a good recovery, and afterwards marrying and bearing a family.

Dr. MURPHY showed—1. An anenkephalous foetus, and said: I am indebted to Dr. Bernard, of Silksworth, for this specimen of an "Anenkephalic Foetus." The mother has three children living, and was six months gone in her fourth pregnancy when labour set in. It lasted ten hours. The presentation was a breech, and there was an immense quantity of liquor amnii. There is complete want of bone at the sides and upper part of the skull, its place being supplied by a membrane continuous with the integuments. The forehead also is wanting, and the base of the skull is closely set on to the shoulders, owing to a curvature of the spine in the cervical region, beneath which the spinous processes of the vertebræ are absent, the canal is covered only by a thin semi-transparent membrane till the lumbar region is reached, where the parts assume their normal aspect. I believe the theory, first demonstrated by Rudolphi of Berlin, is now generally accepted, that this deformity is caused by hydrocephalus; and at the museum at Berlin there are several very interesting specimens showing the progress of the disease—one with the head on the point of bursting; another with a large vesicle protruding through the integuments, through which the fluid can be seen, and what exists of a brain. M. C. Dareste believed the dropsy to be the result of an extremely anæmic condition, and, existing before the formation of the nervous substance, that it prevented its formation. These cases are interesting, as showing that the foetus can exist with a very small portion of brain matter, and not only exist, but thrive; as they are generally broad shouldered, fat, and have those portions that are normal remarkably well developed. Mr. Bradley showed one, weighing  $15\frac{1}{2}$  lbs., to this Society some time ago. They are also interesting from the fact that it is the pelvic end which generally presents—as in this case—thus bearing negatively on the etiology of the frequency of head presentations. Mathews Duncan, Veit, and Höning have shown that if a normal foetus be immersed in a fluid with a specific gravity equal to that of the foetus, the head lies

lower than the breech, and the right shoulder looks downwards, owing to the greater weight of the head and liver. In the anencephalic foetus, the greater weight of the head is wanting, and the usual presentation is a breech or a footling.

2. Retractor for keeping open the incision after tracheotomy, and said: There is frequently some difficulty in keeping the wound in the trachea open during the operation of tracheotomy, and it is to overcome this difficulty that I have had constructed the instrument which I have the pleasure of showing to the Society to-night. It consists of two similar steel bars about three inches long, each of which has its ends bent at a right angle; the bent portion at one extremity measures a little more than an inch, and is joined to its fellow in such a manner that when free from pressure they throw the bars apart. The other bent portion measures less than an inch, and is joined to its fellow by a joint. By pressing the bars together the bent portions touch and in this position the smaller end is introduced into the wound, which it readily enters from its small size; the point is then turned directly upwards towards the glottis, the bars are now allowed to separate, and in doing so they open the wound, which can thus be kept open as long as desirable. The instrument is not at all likely to slip, and there are no sharp points or edges that could injure the trachea. The retractor was made for me by Messrs. Wood, of York, and, as far as I am concerned, it is original, but bearing in mind the words of Solomon, "That nothing is new under the sun," I have not ventured to call it a new invention.

The PRESIDENT thought Dr. Murphy's very ingenious instrument might be useful, and said that in his experience tracheotomy was one of those operations which had to be performed on the spur of the moment. It was well, therefore, to rely as little as possible on complicated apparatus. In all the cases he had seen the hook and scalpel had been quite sufficient.

Dr. HEATH showed—1. Two solid ovarian tumours, he believed of malignant character, removed from the same patient, aged between 40 and 50 years. Associated with the tumours there was ascites. At the operation antiseptic appliances were used, as in his case described in the *British Medical Journal*, but a drainage tube was in the present case passed from the lower angle of the wound to the bottom of the pelvis. A large quantity of almost colourless liquid was drained off through the tube during the first 36 hours after the operation, after which period the tube was withdrawn. The patient made an excellent and rapid recovery. With regard to the use of the drainage tube, Dr. Heath remarked that in ordinary straightforward cases, even if the antiseptic method was employed, he did not consider the tube necessary, but in such cases

as the present, where the peritoneum had for some time been furnishing large quantities of liquid, and in cases where there were extensive adhesions, or where, from any other cause, the pouring out of serous liquid might be expected, he thought the use of the tube very desirable, and not unfrequently the safety of the patient depended upon it.

2. The carotid artery of a man, aged 38, who had died nine days after the application of an antiseptic cat-gut ligature to the artery. The artery was ligatured in the course of an operation for the removal of the lower jaw, together with a mass of malignant disease dipping down behind the jaw into the parotidean space. A complete dissection of the deep structures of the neck had to be made, laying bare the styloid process with its muscles, the internal carotid artery, &c. Hence it was thought desirable as a precautionary measure to ligature the carotid. The ligature employed was a somewhat thin one, he had remarked so at the time when an assistant handed it to him. At the *post mortem*, no trace of ligature could be found, but the artery was filled with clot. The artery had, unfortunately, been cut in removing it immediately below the joint where the ligature had been applied, still the depression produced by the ligature remained on the external coat, but this was not divided. As the artery had not been slit up, the condition of the internal coats could only be surmised, but the shallowness of the depression on the exterior of the artery led him to believe that the internal coats would not be divided. The points of interest in the case were that the ligature had totally disappeared, and that the artery was filled with clot. Had the patient lived, there would not have been secondary hæmorrhage, and the continuity of the artery would have remained unimpaired, at least as to its external coat.

The PRESIDENT said it was most interesting to watch the behaviour of the antiseptic cat-gut in these cases of ligature of arteries. He thought the antiseptic cat-gut an improvement on the old silk ligature, and pointed out that in cases of amputation, where there was much venous hæmorrhage, the vein could be ligatured by cat-gut without any fear of injurious results. He related the particulars of a case which had occurred in his practice that very morning—a railway smash requiring amputation through the thigh—in which very profuse venous hæmorrhage was arrested by the application of cat-gut ligatures.

Dr. PAGE thought there were risks attending the use of the cat-gut ligature. He cited Mr. Spence's case, and a case of amputation which had lately occurred in his own practice. In the latter case very profuse secondary hæmorrhage had occurred, owing to the giving way of the cat-gut.

In compliance with the President's request, the artery was then slit up. A firm clot in process of decolorization was thus shown, but the internal coats of the artery seemed not to have been divided.\*

Dr. HEATH asked Dr. Page if he could inform him for what disease the carotid artery was ligatured in Mr. Spence's case.

Dr. PAGE said he believed the disease was a pulsating tumour of the orbit, but Dr. Bramwell, who was Professor Spence's house surgeon at the time of the operation, could doubtless give more certain information on the matter.

Dr. BRAMWELL said the artery was tied for the cure of a pulsating tumour of the neck. After death, this tumour was found to be a bloody cyst, which was intimately connected with the external wall of the carotid artery.

Dr. HEATH said he was glad to obtain the information Dr. Bramwell had afforded them, for had the ligature been applied for aneurism of the carotid, as was sometimes supposed, he thought the consolidation of the aneurismal clot would have rendered embolism impossible. As to the behaviour of cat-gut ligatures, this was a matter to which he had given some attention, and had read carefully the details of all the *post mortem* examinations he could find of cases where the antiseptic cat-gut had been used. No doubt it behaved variously, but what seemed sure was its disappearance after from six or eight days to fifteen. He hoped on some future day to bring this matter more thoroughly before the Society.

Mr. FIELDEN showed—1. A foreign body from bladder, and said : Some little time ago I was called to see a patient who was suffering from vesical irritation ; her symptoms pointing to the presence of stone. With a little difficulty, I persuaded her to allow me to examine her bladder. The sound struck a foreign body which had not the usual " ring " of a calculus. She was put under ether, and placed in the position for lithotomy. I rapidly dilated the urethra with a three-bladed dilator, and with the aid of an ordinary lithotomy forceps, this, sir, was removed. [The PRESIDENT : " A pessary ? " ] No, sir, I think it is more allied to a " French letter." I ascertained that some time previously she had consulted a physician, who informed her that as she had a fatty heart, it was desirable she should have no more children, and her husband learning this, adopted that sort of thing as a check. How it got into the bladder has not been satisfactorily explained. The patient progressed favourably, and after the first week did not suffer from incontinence of urine.

\* Subsequent examination showed a very narrow but perfect fissure in the internal coats at the ligatured point.

2. A malignant tumour of kidney, and said: This large tumour, weighing over 8 lbs., was removed, *post mortem*, from a boy between four and five years of age. It was of rapid growth, six months at most having been occupied in its formation. The case came under my notice ten days before death. At that date the abdomen presented much the appearance shown in this photograph, the girth at the umbilicus being 36 inches. The whole of the right side of the abdomen from the ribs to the ilium was dull on percussion. The dulness extended for an inch or more beyond the middle line, except just above the umbilicus, where there was some resonance. At this point, as was expected, a knuckle of intestine was found at the *post mortem*. On the left side the percussion note was clear, except in the pubic and iliac regions, which were oedematous; in the scrotal region also cedema was present. The varying percussion note on change of position led me to think there was some ascites, though no fluctuation could be detected. There was no special complaint of the urine, and blood had at no time been passed. With a view to ascertain, if possible, the character of the tumour, a portion of its contents was withdrawn by the aspirator: the fluid part was found to consist mainly of blood, while the white brain-like solid part was made up of nucleated cells. My friend, Dr. Bramwell, has examined it, and considers it a case of small-celled sarcoma. The intestines were pushed over to the left side by the tumour, and were everywhere firmly adherent to it or to each other. About a quart of ascitic fluid escaped from the belly.

3. A fatty tumour removed from the axilla, and said: The last specimen I have to show is one of ordinary fatty tumour, and is interesting more from the position in which it was found than from any peculiarity it possesses. It was lying in the axilla, and was found to be in close contact with several important vessels and nerves, notably, the long thoracic artery and the external respiratory nerve of Bell. The wound was dressed antiseptically, and was not interfered with for ten days, when it was found to be healed completely without the formation of a single drop of pus. No drainage tube was used.

Dr. GIBSON showed liver, spleen, stomach, and kidney of a sailor, æt. 35, who was received into the Infirmary on the 12th October—three weeks after the commencement of his disease. He died eight days after his admission into the hospital. The man was much worn down by pain, sleeplessness, and want of food. He complained of pain throughout the abdomen, but especially at its upper part. The pain was especially severe in the epigastric region, and was increased very greatly upon pressure. The abdomen generally was distended, and across the epigastrium

was a rounded swelling, which stretched from hypochondrium to hypochondrium, and which was always resonant on percussion. The tongue was partially covered with patches of white fur, and elsewhere was dry and shrivelled. There was much thirst and complete loathing of food. The respirations were short, and about twenty in the minute. The skin was dry ; its temperature—as measured in the axilla—never exceeded  $99^{\circ}$ , and was sometimes below  $98^{\circ}$ . The pulse varied much in frequency, but was always small and easily compressed. The bowels were purged from time to time of pale ochry offensive fæces. The urine was in small quantity, of high specific gravity, and contained albumen and granular and fatty tube-casts. Vomiting occasionally occurred. These conditions held more or less up to the day of death, which took place somewhat suddenly. The necropsy manifested very extensive disease. The peritoneum was extensively inflamed, and showed at several places deposits of plastic lymph, while its cavity contained a large quantity of serum, interspersed with flakes of lymph. The large omentum was adherent throughout, and on detaching it for more complete observation an abscess was ruptured, which discharged a large quantity—probably two or three pints—of dark-coloured inoffensive pus. This large abscess was placed between the left lobe of the liver above and the spleen below, having the stomach, the gastro-splenic omentum, and the left crust of the diaphragm to complete its walls, the whole being bound together by thick layers of coagulated lymph. The liver was extensively denuded of its capsule, its parenchyma being directly in contact with the mass of purulent matter. The spleen, which was enlarged, was also denuded of its capsule, and directly in contact with the pus of the abscess. The remains of the capsule here appeared as flocculi, which moved under a stream of water like fine sea-weed. The stomach, with enormously thickened walls, was firmly bound to the liver by the lymphic effusion. One globular abscess, of the size of a walnut, was found near the margin of the liver. The kidneys were diseased, the cortical structure being much congested, while the bases of the pyramids showed a discolouration which marked the onset of a fatty degeneration. The pleural cavities contained a few ounces of serum, in which flakes of lymph floated, and a few adhesions were found between the costal and the pulmonary surfaces. The pericardium also contained serum with lymph flakes. Dr. Gibson remarked that the case was altogether extraordinary. Although there was active disease in the pleura and pericardium, no complaint was made during life of the condition of the chest ; and there was no cough from the beginning to the end of the case ; and although an enormous abscess had formed within the abdomen, in conjunction with active disease in

the peritoneum, liver, stomach, spleen, and kidneys, there was no rigor, no elevation of temperature or of pulse, no sweating, and no jaundice. The case was probably unique.

Mr. H. E. ARMSTRONG asked how Dr. Gibson accounted for the fact that the pleurisy and pericarditis were not detected prior to death.

Dr. GIBSON said the only way he could account for the absence of symptoms was by the fact that the patient's general perception was to a great extent destroyed.

---

### EXHIBITION OF PATIENTS.

The PRESIDENT showed two cases of excision of the knee joint, in one of which contraction of the knee to almost a right angle had occurred sixteen months after union had apparently been osseous and firm in a straight position, and said : This girl whom I have the pleasure of showing to the Society this evening was admitted into the Sunderland Infirmary in May, 1875, with disease of the knee joint, which had not gone on to suppuration. It was diagnosed as being that form of pulpy degeneration of the synovial membrane which is so common in the knees of strumous children, though not exclusively in such children ; and it was thought well to try the effect of prolonged rest in a straight position, with constitutional treatment, before proceeding to operation. The disease, however, continued to get worse, and on January 4th, 1876, the joint was excised. The synovial membrane was found dark red in colour, and much thickened. The cartilages were eroded, and in places peeling off the condyles, and a few drops of pus were in the back part of the joint. On May 24th, 1876, nearly five months afterwards, she was dismissed with a well-united leg, on which she could walk comfortably, and of which this is a photograph. In September of the present year, sixteen months after her cure, she presented herself with the knee contracted nearly to a right angle, and without motion, as you see it this evening. She said the contraction had been imperceptible, and that she had had no pain. She could not say when it had commenced, and was now led to come back to us by feeling it impossible to straighten it, or to walk, save on her toe. I believe that we shall be able to restore this limb to a straight position, and I hope to fix it there ; and, with your permission, I will bring the result of our efforts before you on a future occasion. I show the case now, because I have never known a similar one, nor do I find any record of contraction to such an extent of the knee, after excision, when union in a straight position had been (apparently) osseous and firm.

In this second case, which I show, the disease was similar, but further advanced when he was first treated. We tried here also by position and repose to obtain ankylosis, and succeeded. All the pain, and starting, and fever disappeared, and he was discharged in good health with a stiff knee; but, by and by, disease was lighted up again, and he was again admitted, and the joint excised. There was matter formed; the cartilages were in great part gone; and adhesions were broken down before the joint could be turned out. This photograph represents his condition when discharged 21 months ago. The leg, you see, is bowed outwards, but in my experience this is not an unfavourable position. Here, too, there has been slight contraction, evidently due to the hamstrings which you can feel tense and strong, but the contraction has not increased for the last few months since he has worn this felt splint, and he is able to join in very rough play in his school, and to walk and run with perfect ease. As he grows—and he is growing rapidly—the bowing outwards has been exaggerated, just as you see in this woodcut, from Mr. Swain's monograph of a case of his, in which, as the patient grew up into manhood, the bowing increased, while the union continued firm.

Dr. HEATH and Dr. BRAMWELL alluded to Mr. Annandale's case, in which a useful moveable joint had followed incision of the knee.

The PRESIDENT said that in his case the remarkable points were:—1st, there had been complete bony union, and that contraction had followed; 2nd, that there never had been any motion; that in Mr. Annandal's case the same result had evidently been obtained as is always the case in excision of the elbow, but in this girl there was no motion between the bones when she was discharged with a straight limb, nor is there motion perceptible now, when the limb is contracted to a right angle.

Dr. BARRON showed a case of supernumerary fingers and toes, and said: Sir,—The case I bring before the Society to-night is interesting in several ways. It is a case of supernumerary fingers and toes, or "polydactylism." The boy came under my care at the Children's Hospital in this town, requiring treatment for his eyes. He had completely lost the sight of his right eye some years before from an attack of purulent ophthalmia. The sight of the left eye was becoming rapidly impaired, so, on the 19th of August, I removed the right eye. The stump rapidly healed, and the left eye as rapidly recovered from the sympathetic affection. The polydactylism is interesting from the beautiful regularity of the toes. At first sight we do not notice anything abnormal; the child has a broad, strong foot, and everything appears natural and in order. It is not until we come to count the toes that we discover

the excess. In the hands, however, we see that this regularity is lost. The extra fingers occupy the corresponding sides to the extra toes (the outer), but their position is more eccentric. The supernumerary fingers were removed at birth by a medical gentleman in this town. Professor Darwin formerly looked upon these cases of polydactylism as cases of reversion to a former type of structure, but he now expresses doubt on this point. He mentions three facts about them: they occur frequently, they are strongly inherited, and they have the power of re-growth after amputation. With regard to their frequency, I should be glad to hear the experience of any of the members of the Society. Concerning the point of inheritance, I have not been able in this case to find any evidence of inheritance. The boy's brothers and sisters, mother, and aunt show nothing of the kind, and the mother has never heard of such an abnormality occurring before in any member of either her husband's or her own family. With regard to the third point, the power of re-growth, I must observe that the extra fingers still show very distinct traces of their existence, in spite of the amputation at birth. I do not, however, pretend to be able to say whether this is due to re-growth, or to their not having been completely excised.

Mr. FIELDEN said his experience was large, for he had attended at least three thousand midwifery cases. He had only met one case of the malformation Dr. Barron had just shown. In that case the hands were normal.

Dr. SCOTLAND said in reference to such conditions being hereditary, he knew a family consisting of three, two brothers and a sister, where the sister and one brother both had two thumbs on their right hands. The other brother had a malformation of the great toe. The mother died of cancer of the uterus, but whether that threw any light on the subject he was uncertain. The sister was married lately and had one child, but he did not know if any similar condition existed in it.

Dr. MCDIARMID said he had seen two cases of polydactylism; one exhibited a double thumb, and the other a supernumerary little finger. Both cases were males and congenital imbeciles. Whether the defective development of the central nervous organs had anything to do or not with the excessive development of the hands, he did not know.

Mr. H. E. ARMSTRONG alluded to the case of the malformed Portuguese, who had made a tour through the country some years ago.

Dr. EMBLETON promised to show a photograph of the case at the next meeting.

Dr. HEATH showed a case of conical cornea which had diminished under the use of iodide of potassium. He also brought forward a case of hypertrophy of the leg, in which the external iliac artery was ligatured. The patient was a boy six years old. Before the operation the left leg was two and a half inches longer than the right, and measured at the thickest part of the thigh twelve inches and a quarter in circumference, the right thigh measuring eight inches and a half. Three months after the operation the left leg was only one inch and a half longer than the right, and the measurements of the thigh were: left, twelve inches; right, eleven inches. The constant current had been applied to the right leg. The hypertrophy was not congenital. A full report of this case appeared in the *Lancet* of 17th November, 1877.

In reply to Dr. Bell, Dr. Heath said that the utility of the limb was not altered since the operation; and, in reply to Surgeon Craig, that he had read of the ligature of the main artery of the limb in cases of elephantiasis, but he had not personally met with any cases.

---

## CASE OF LARGE LYMPHO-SARCOMA SUCCESSFULLY REMOVED FROM THE NECK OF A CHILD.

By F. PAGE, M.D.

MR. PRESIDENT AND GENTLEMEN,—Last session I showed you a single adenoid tumour, weighing nearly 3 lbs., which had been removed successfully from the left mammary region of a woman by Mr. Lister's method.

Here is a large multiple tumour of a very similar character, which has been removed from the left side of the neck of a girl, aged eight years, with the result which I am happy to be able to show you this evening. (Patient shown.)

E. B. came under my care at the Hospital for Sick Children in this town, last May. Three years before, a small swelling was noticed in her neck, which continued to increase steadily, till the child's appearance was such as is fairly represented in the accompanying photograph, taken a short time before the operation. The patient had been treated, for a time, in the Children's Hospital, by my friend and colleague, Dr. Drummond; but as the growth continued to increase rapidly, in spite of medical treatment, I was asked to see the case, and, after consultation, determined to remove the growth antiseptically. No great difficulty was experienced in enucleating the formidable looking mass of disease I now show you, with the exception of the top and bottom portions. At the top, a part of the tumour about the size of a pigeon's egg lay beneath the sterno mastoid muscle, and was partially concealed by the lower jaw, and below portions of the tumour dipped deeply beneath the clavicle. It was found necessary to divide the external jugular vein, but the sterno mastoid was not cut through, merely turned on one side so as to allow those parts of the growth overlapped by it to be dislodged. All bleeding vessels were secured with catgut ligature, none of which were ever seen again after the wound was closed. Large drainage tubes were introduced into the pits beneath the jaw and the clavicle, so as to prevent fluids accumulating there, and the edges of the wound were brought into accurate apposition by means of catgut sutures.

Notwithstanding the very extensive nature of the wounds (the incisions reached from the scalp to two inches below the clavicle in one direction, across the neck for three inches in another, and exposed the whole of the floor of the posterior triangle of the left side of the neck) healing went on rapidly. In ten days the spray was discontinued, the drainage tubes, which had been previously shortened, were removed, and the slight superficial wound then remaining was dressed with carbolic oil and cotton wool. In





fourteen days the child left her bed, and on June 17th—just nineteen days after the operation—she left her sleeping room for the day room of the hospital.

A considerable amount of wry neck continued for a time, but now it is very slight. I propose in a few days to divide those fibres of the clavicular portion of the sterno mastoid muscle which are still tense; after which I hope the present trifling deformity will be remedied, and the case perfected.

---

# NOTES OF A CASE OF INTUSSUSCEPTION IN AN ADULT IN WHICH RECOVERY UNDER OPIUM TOOK PLACE.

By G. B. MORGAN.

On the 7th of July of the present year, I was asked by my friend, Mr. Atkinson, of Sunderland, to see one of his patients with him, with a view of determining the propriety of performing colotomy.

The patient was a lady, aged 40. She was tall and fragile-looking, and had been confined six weeks of her third or fourth child, which she was unable to suckle. This child was the subject of a small spina bifida in the lumbar region.

A week previous to my seeing Mrs. S., she had been seized with diarrhoea and vomiting, with great abdominal pain, and much fever. After three days, the diarrhoea ceased, but the vomiting continued and became very foul smelling, and her prostration was great.

On July 7, her condition was as follows :—She lay upon her back, and appeared much exhausted ; the belly was very large and flaccid, and the presence of a large tumour could be felt in right iliac region, evidently the distended bowel, above some obstruction. She vomits everything she takes, and the ejected matter is dark yellow and stercoraceous ; tongue moist and coated ; pulse 100 compressible ; temperature normal ; the pain was still complained of but not so severe as it had been previously ; no hernia was perceptible.

On examination per rectum the bowel feels thrown into folds, and the point of the finger can touch the invaginated portion of the colon ; it feels thickened, and like somewhat to the feeling of the os uteri.

She was given ice to suck, and half-grain of opium in pill every hour.

July 8. She has had a comfortable night, and expresses herself as feeling better ; the vomiting continues ; no action of bowels ; the rectum feels as yesterday.

You can see outlined through the wall of the abdomen the coils of the distended small intestine.

To continue opium.

To have a large enema of warm water administered with O'Beirn's tube.

July 9. The vomiting much less. Expresses herself as feeling comfortable.

July 10. The enema has been retained ; no motion ; vomiting continues ; pulse is small, 110 ; temperature normal.

To continue the opium, and have enema repeated.

Same day (evening). Flatus has been passed per anum, and a small quantity of same sort of fluid as that vomited.

July 11th. Has had a good night, and a scanty and very foul motion; the belly is still much distended, and you can discern the coils of intestine through the abdominal walls very distinctly, and the tumour in right iliac fossa is quite perceptible.

To continue opium.

Same day (evening). The long tube passed more readily, and the rectum seemed to have fæces in it, and the invaginated portion can no longer be felt. A large quantity of milk and water was thrown up with tube and retained.

July 12th. There has been copious evacuation thrice; still there is hiccup, but no vomiting. She is very low; pulse 120; and tongue dry and furred.

To have beef tea and milk in larger quantities, and arrowroot with a little brandy.

July 13. Still copious evacuations; the belly is much fallen; she lies quite prostrate.

To cease opium, and take five drops of tincture of nux vomica every four hours.

From this date she steadily improved, and is now quite well.

She took 56 grains of opium during the five days.

The case seems to be of sufficient interest to lay before the Society, because we know how fatal this disease usually is; because our delay in resorting to colotomy was rewarded by success, and because that success was at least contributed to by the use of the opium. Two years ago I exhibited to this Society the parts from a fatal case of intussusception. The patient was an infant. As in this case, the invagination was preceded by diarrhœa, and great intestinal irritation. The bowel was protruded fully six inches from the anus, and a sudden convulsion, in which he died, prevented the possibility of colotomy.

Mr. H. E. ARMSTRONG related the particulars of three cases which he had met with.

Dr. MURPHY gave an account of a case which had lately occurred in his practice. The patient was a child, æt. five months; the invagination was situated just inside the anus. The child died of peritonitis.

Dr. HEATH thought colotomy ought to be performed more frequently than it is. He advocated the operation in cases of cancerous stricture of the rectum, and in cases of impacted fæces.

## A CASE OF PYLORIC OBSTRUCTION, WITH AN ABNORMAL POSITION OF THE RIGHT END OF THE TRANSVERSE COLON.

By D. EMBLETON, M.D.

A. H., æt. 46, who had lived hard for some time, but was never drunk or incapable of attending to business next day, and never had a headache, had been suffering for nearly three years previous to May 1st, 1876, when I was first called to see him, from the following symptoms, which were also then present:—

His appetite good, tongue very little coated, flatulence, no pyrosis, little heart palpitation, and no pain existed, but sudden vomiting, and quite beyond restraint, would come on nearly daily, either during meals or at a variable time after them; both swallowing and vomiting were easy. His bowels usually costive. The matters vomited were more or less digested food, very acid, mucous and frothy, and on standing a while were covered with a light brown yeasty-looking scum, containing *sarcinæ* and *torulæ* in abundance.

With the exceptions of the vomiting, the constipation, and the loss of flesh, he declared that nothing ailed him, and he could transact any business. He had, however, lost nearly four stone in weight since vomiting began, and he slept badly, partly on account of his legs being in bed uncontrollably restless. On examination of the abdomen nothing abnormal was found beyond a slight resistance at the upper part of the right rectus in the situation of the pylorus, there was no defined tumour, no pain referred to the part, and complete absence of tenderness and of nausea, even on strong pressure, and percussion appeared to be natural all over. There were no signs of disorder in the head or chest; pulse about 75.

On the 13th he was sent into the country, and found immediate relief, the vomiting ceased, his appetite improved, the bowels acted naturally, he took active daily exercise without fatigue, and gained rapidly both flesh and strength; in four weeks he returned to all appearance well; soon after, however, he began to vomit again, at first once or twice a week, and afterwards daily, suffering uneasy distension and a working at the stomach as if an effervescence was going on, previous to vomiting. Matters vomited were as before.

The prognosis from the first was pyloric obstruction with doubt as to there being cancer, since there was no pain or defined tumour.

The diet ordered was of the simplest and most nourishing kind the medicines prescribed were soda and hydrocyanic acid, carbolic acid, sulphite of soda, with and without opium, but gave no relief.

Renewed visits to the country in various parts again brought relief, he also consulted various physicians and had various medicines.

In August the former symptoms returned, and with intermissions went on till October 12th, when he vomited a good deal of grumous blood, and passed blood by stool for a day or two, after which the motions resumed their former healthy colour, but were scybalous. Enemata of soap and water were afterwards given, and beef-tea injections twice a-day, to assist in nutrition, as the hæmorrhage had brought on prostration. The bleeding never recurred, and the usual symptoms went on, producing such exhaustion that it was feared his end was near, as he was scarcely able to turn himself in bed, and each day added to his emaciation.

In November all medicines as iron, quinine, strychnia, &c., in various combinations, were discontinued as useless, and food only given by the mouth and rectum. On the 6th, at his own desire, galvanism was used. On the 9th, after suffering much pain in the region of the liver and up the right side of the chest, he felt better and vomited only once, next day not at all, his appetite returned, he took more food, the bowels began to move of themselves, and though the vomiting occasionally recurred, by the end of the month he was able to go out again, daily gaining fat and muscle, and reviving in energy both of body and mind. Galvanism was gradually left off.

Went to several places at the beginning of the present year, with alternations of health and sickness. In June the old symptoms came back, he went once more into the country, and I saw him again at home on September 9th, suffering more severely than ever, and much reduced in every way, the appetite was gone, vomiting once or twice daily, sometimes of a large quantity which was forcibly ejected, bowels confined, great restlessness of legs, and inability to sleep, much debility, face blanched and pinched, pulse feeble, compelled to lie in bed. Still there was no pain except from flatulent distension, and scarcely any more tumour to be felt, and no tenderness on pressure. The pneumogastric nerves had never been found tender on pressure.

Daily he sank, wandered in mind, had convulsions on trying to rise and insensibility, from increasing debility. He died ten days after, that is, on the 19th of September.

Autopsy, fifty-two hours after death; present, Dr. Page, who had previously seen the patient, and myself. No decomposition, but a little suggilation at depending parts. Face and body generally very pale and emaciated, little fat anywhere.

On opening abdomen a greatly hypertrophied stomach, occupying a very large space of the abdominal cavity, was exposed, the intestines small, and with the exception of the descending colon and the rectum, in which were a few scybala, empty. Lying in front of the pyloric end of the stomach, and in front of the liver were three or four coils of empty large intestine, traced to the left

they were continuous with the ascending colon, and to the right with the transverse portion of the colon which, on raising up the stomach, was found stretched behind that organ rather tightly from side to side, and quite empty. The coils upon the liver were imbedded on its upper surface, but were not adherent to it; on raising them up the hollow spaces they had occupied were remarkable, these coils of colon lay between the liver and the diaphragm, a situation in which neither Dr. Page nor myself had ever before seen this intestine.

The liver was small, pale and smooth, except the indentations made by the colon, and appeared to be drawn backwards towards the spine. On raising up its thin border, the under surface, the parts about the portal fissure and the gall bladder were found covered by an opaque and thickened capsule, but without external false membrane, and which rendered indistinct the whole region, including the pyloric end of the stomach. The gall bladder had lost its usual pyriform shape, was elongated and narrow, and its fundus was attached firmly by old adhesion to the anterior surface of the stomach a little way from the pylorus, the gastro-hepatic omentum also was thickened and opaque.

The pylorus was found somewhat enlarged, thickened, and hardened. On opening the stomach a quantity of dark coloured mucus was found, and the mucous membrane was generally congested, it was thickened in the pyloric region, pale, rough, and in part ragged, as if it had been abraded, but no ulceration was observed. The orifice of the pylorus was much contracted, barely admitting the little finger when pushed into it, the walls of the passage were a good deal thickened and very hard, the knife grating almost as if on cutting cartilage when they were incised. No enlarged glands were seen, or any other indications of cancer. The abdomen only was examined.

It has been concluded from the previous history of the patient, that the stomach and liver, from the frequent and continued application of alcoholic and other stimulants for years, had been in a state of chronic inflammation, which had gradually thickened the capsule of the liver and gall bladder, the gastro-hepatic omentum, and the pyloric end of the stomach by the effusion of plastic matter into and beneath the serous layer covering them, and that on some occasion the fundus of the gall bladder had become attached to the stomach. This new matter becoming organised would certainly contract more and more as time went on, would drag the liver towards the pylorus and spine, thus giving room for the colon to be pushed up over it perhaps by the enormous hypertrophy and distension of the stomach, or by some unusual efforts at vomiting, or through the effects of galvanism, it would by degrees also exert its power upon the pylorus, the walls of which being first

hypertrophied and then contracted, would of necessity become more and more narrow, causing retention of food, followed by fermentation of it, and vomiting.

The hæmatemesis which occurred once only during the course of the disease it is difficult to account for, and is, it is believed, rare in similar cases. There must of course have been rupture of some vessel or vessels at or near to the pylorus.

The diagnosis in this case was not difficult, at least as regards pyloric obstruction, though the nature of the obstruction was for a time doubtful, but the absence of pyloric pain and of tenderness on pressure, the persistent smallness of the pyloric tumour, the absence of any pneumogastric sign, and the want of direct evidence of the presence of cancer, indicated the existence of mere mechanical obstruction; the post-mortem examination showed that the obstructing material was a fibrous or, if you will, a fibroid and non-malignant growth.

I do not know that the peculiar position of the right angle of the colon with respect to the liver has been before observed.

It is worthy of being noted that the application of galvanism—the interrupted current—was very useful in overcoming for some time the obstruction; it operated probably by strongly stimulating the contractions of the walls of the stomach, and so forcing the food into a part of the intestinal tube where secondary digestion might be carried on and the food utilised for the nutrition of the body.

Dr. T. DAVIS related a case of pyloric obstruction, in which the stomach was enormously dilated and displaced, the greater curvature being situated in the true pelvis. He also mentioned another case, which had continued for six or seven years.

---

## CASES OF INTRA-CRANIAL TUMOUR.

By BRYOM BRAMWELL, M.D.,

At the Edinburgh meeting of the British Medical Association, I had the honour of reading before the Psychological Section the notes of a case of unilateral convulsions, in which a lesion of the cerebral cortex was produced by the presence of a small projecting spiculum of bone. (The specimen was here exhibited to the Society.)

The case is a very valuable and instructive one, and is reported in the *British Medical Journal* for September 1st, 1877. I am glad to take this opportunity of adding to the somewhat meagre comments which I have already made upon it.

Dr. Hughlings Jackson has remarked that cases of disease are the *only experiments* which we can observe *in man*, and that "there is no other way of ascertaining the localisation of movements in the cerebral hemispheres *of man*, than by a study of his convulsive seizures."

In most cases the experiment is necessarily a "rough one." Cases of this description, I refer to cerebral tumours implicating the convolutions, are notoriously of long duration. The symptoms, which in the earlier stages were perhaps limited and definite, often become, prior to death, complicated and ill-defined. The post-mortem lesion is found to be proportionately extensive. Hence the deductions drawn are more or less uncertain.

It would be difficult to imagine a case of disease which more rigidly fulfilled the requirements of a physiological experiment than the one I am describing. The lesion was singularly well defined and of very limited extent. The remaining portions of the brain were absolutely healthy. The resulting phenomena, *i.e.*, the convulsions, were most definite in character.

*Position of the lesion.*—The lesion was situated in the *ascending parietal convolution*, an inch above the fissure of the Sylvius, and corresponded to a small transverse fissure which extended between the fissure of Rolando and the parietal fissure. (Its exact position is seen in the photograph and diagram which I show you.)

The very careful microscopical examination which was kindly made by my friend, Dr. Herbert Major, showed that the destruction of brain tissue was exceedingly small, and yet the resulting phenomena, (the convulsions), were of considerable extent. The lesion was, in short, a "discharging" and not a "destroying" one.

*Character of the convulsions.*—The convulsive paroxysms were of three kinds, *slight*, *moderate*, and *severe*, but in all the "march of the spasm" was the same.

In the *first* or *slight* form, the muscles of the face and neck were

alone affected. Both eyes were firmly closed, and the right corner of the mouth drawn down in tonic spasm, the platysma being rigid. The eyes were then partly opened, the head and eyeballs slowly rotated to the right. Clonic spasms next occurred in both eyelids (the right being affected much more powerfully than the left), in the muscles of the tongue, right side of the face, and neck, (the platysma being chiefly affected). After a short interval the spasms became less frequent, the head and eyeballs were slowly turned back to the middle line, and the eyelids widely dilated, the patient presenting an animated appearance. The eyeballs were finally rotated upwards and to the left, the eyelids closed, and the patient apparently fell asleep.

In the *second* or "*moderate*" form, the convulsion commenced as before. After the head had been rotated to the right, and as the clonic spasms were commencing, the fingers of the right hand were drawn in to the palm, the hand was then flexed at the wrist, the forearm bent to a right angle and placed across the chest. The muscles of the right leg at the same time became rigid, and the foot strongly inverted. Clonic spasms then occurred in the muscles of the arm and forearm, the flexors being chiefly affected. A few spasmodic twitchings were to be seen in the leg and thigh, chiefly in the extensors. There was never any flexion of the hip or knee.

In the *third* variety the convulsion became general. The fit commenced as before, and passed through the various stages enumerated above. After flexion of the right forearm, the arm was slowly raised at the shoulder until it was nearly at a right angle with the body, the tonic spasm then passed to the muscles of the left arm and of the left leg in the following order:—The fingers of the left hand were first drawn in to the palm, the arm was then raised upwards and brought over to the right side, so that the hand approached the forehead, the left leg was at the same time flexed on the abdomen, the knee being slightly bent, the toes spread out and the foot flexed at the ankle joint. The tonic spasm soon passed off. Clonic spasms of the muscles generally occurred, the patient foaming at the mouth, and made a cackling noise. As the clonic spasms occurred the left arm was abducted and bent to a right angle at the shoulder, the under surface of the arm, forearm, and hand being uppermost. As the spasm passed to the left arm and left leg, both sides of the face were strongly convulsed.

The muscles of the right side were always more strongly affected than those of the left.

*Frequency of the convulsions.*—The *slight* fits occurred every few minutes, the *moderate* ones frequently, the *severe* ones only occasionally (six or eight in the twenty-four hours.)

## REMARKS

The conclusions I would draw from this case are :—

1. That a limited “discharging” lesion of the human cerebral cortex produces definite and constant muscular movements.

2. That the action of the hemispheres is in general crossed, but that movements of those muscles which habitually act together, such as the orbiculares palpebrarum, are bilaterally co-ordinated from each hemisphere (Dr. Broadbent’s hypothesis of the mechanism of bilateral movements).

3. That the muscular movements which resulted in this case from irritation of a particular spot in the cerebral cortex closely corresponded to the muscular movements which Ferrier produced by galvanic stimulation of homologous centres in the lower animals.

The position of the lesion corresponds as nearly as I can make out at Ferrier’s centres (11) and (13) and is in close proximity to centres (a) and (10).

On stimulating the centres I have named, Ferrier obtained the following results:—

(11) “Retraction of the opposite angle of the mouth. The platysma myoides is thrown into action, and when this is powerful the head is drawn slightly to the side.”

(13) “The eyes move towards the opposite side and upwards.”

(a) (b) (c) (d) “Individual and combined movements of the fingers and wrist.”

(10) “Opening of the mouth with retraction of the tongue.”—(*The Functions of the Brain*, page 143.)

In the case I am describing retraction of the opposite angle of the mouth and rotation of the head and eyes to the opposite side (11) and (13) were always observed. But in addition, the eyes were closed and the orbiculares thrown into clonic spasm. Ferrier places the centre for the eyelids (12) in the middle frontal convolution or its homologue in man, a point at some distance from the seat of the lesion in my case. The results, then, in this particular do not exactly correspond.

4. That the proximate causes of the different epilepsies are, as Dr. Hughlings Jackson supposes, discharging lesions of the centres in the cerebral hemispheres.

5. “That the limited irritation which manifests itself in a limited convulsion has a tendency to become diffused and to involve the whole of the cortical centres, so that what at first was merely a local convulsive spasm without affection of consciousness may gradually gain in range and intensity until, along with the motor perversion, we get the loss of consciousness, which is regarded as an essential factor in the true epileptic seizure.”—(Ferrier, *Experimental Researches in Cerebral Physiology and Pathology*, *West Riding Hospital Reports*, 1873, page 90.)

6. That in this case, in which the convulsion commenced on the right side and spread to the left, the muscles of the second side first invaded were those most in voluntary use, viz., the muscles of the fingers and thumb.

Cases in which convulsions begin on one side and reach the other are exceedingly rare. Indeed, no less experienced a physician than Dr. Hughlings Jackson says he has seen few cases, and asks as to the second side—

“1st. Is the arm or the leg first affected?”

“2nd. What part of either of the two limbs does the spasm first reach? Does it first reach their upper parts (shoulder and thigh) or their lower parts (hand and foot)?

“3rd. Does it specially affect any groups of muscles, *e.g.*, the extensors or flexors?” (*West Riding Hospital Reports*, 1873, page 338.)

In this case the *upper* extremity was first affected. The spasm commenced in the *fingers and thumb*. The *flexors* of the fingers, hand, and fore-arm were chiefly involved. (For the exact order of the spasm see page. 55.)

This is contrary to Dr. Hughlings Jackson's theoretical view. He says—“We should expect, then, that when a fit begins in the hand of the ‘first side,’ that the spasm in the convulsion of the ‘second side’ would invade the parts of that second side in a manner different from the invasion of the first side.” And again—“From a few observations, and from hypothetical considerations, I should expect that when a convulsion begins in the hand the spasm reaching the ‘second side’ would affect first and most the parts affected last and least on the ‘first side’ (head, eyes, leg, trunk first and limbs last).” (*West Riding Hospital Reports*, vol. vi., page 293.)

In this paper, I propose to record the other cases of intra-cranial tumour which have come under my observation during the past three years. Some of them, like the one I have just related, are of considerable interest in a localising point of view.

And here it will be well for me perhaps to say that by the term “intra-cranial tumour,” I mean, with Clifford Allbutt, “any enlargement or thickening encroaching upon the intra-cranial cavity.” (*The Ophthalmoscope*, page 117.)

Before passing on to the cases of intra-cranial tumour properly so called, I will relate a case of acute tuberculosis, in which a limited tubercular deposit on the surface of the *right ascending parietal and ascending frontal* convolutions caused left-sided unilateral convulsions.

**CASE II.**—*Acute tuberculosis. Cough. Shortness of breath. Sudden loss of power in fingers and thumb of the left hand. Left-sided unilateral convulsion, without loss of consciousness. Left-sided hemiplegia, and loss of speech following the fit. Speech and motor power regained except in the left fingers and thumb. Convulsive twitchings of the left platysma and left orbicularis palpebrarum. No headache. No neuro-retinitis. Autopsy:—General tuberculosis; Limited tubercular deposit on the surface of the lower end of the right ascending frontal and ascending parietal convolutions; Healthy condition of the membranes of the base.*

G. S., æt 27, labourer, single, was admitted to the Newcastle Infirmary, under my care, on 27th of January, 1876, suffering from shortness of breath, cough, and left-sided hemiplegia.

*Previous History.*—His present illness commenced five weeks ago, and was brought on, he thinks, by exposure to cold. Before this attack he was very healthy, never, in fact, having required a doctor. The illness commenced with cough. He next felt a choking sensation in the chest and became very short of breath. He has had neither pain nor expectoration.

*On January 8th* (three weeks before admission and two weeks after the commencement of his illness) he suddenly lost the power of the fingers of the left hand. He was not giddy; had no pain in the head; no loss of power in the leg; no affection of speech. There was no trembling nor twitching in the hand before the paralysis set in.

*On January 13th*, at 9.30 p.m., he was seized with a convulsive trembling in the left arm, leg, and left side of the face. The fit continued for three-quarters of an hour; both eyes “worked.” He was conscious during the attack. When it passed off he found that he was unable to speak, and that he had lost the use of the left arm and leg.

*On January 15th*, he had a second and similar fit.

*On January 17th*, a third.

Since the date of the last fit he has been gradually regaining the power of the arm and leg. Speech returned a day afterwards. When he did begin to talk he had no difficulty in finding words, only hesitation and difficulty in pronouncing them. He has been in the habit of using his left hand as much as his right, because of a rupture on the right side. He is not, however, left-handed in the true sense of the word. He has not had any headache and has not vomited. He never had rheumatism nor syphilis.

*The Family History* is good.

*Present Condition*—He is feverish and looks ill. The pulse is 100, and very weak. The temperature 103° F. The lips are dry and cracked. The tongue dry and tremulous. He complains of great thirst.

He is troubled with a frequent short dry cough. The expectoration is very scanty, and consists of frothy mucus. The respirations number 34. *On Percussion* there is marked dulness over the upper half of the left lung, and over each base posteriorly. *On Auscultation*, metallic crepitation, mixed with sibilent râles, is heard over the dull area. Over the clear parts of the chest sibilent râles and occasional moist sounds are heard.

There is marked loss of power in the left arm, leg, and left side of the face, the tip of the tongue is turned to the left side. The paralysis is complete in the fingers and thumb of the left hand. Sensibility is lost in the left thumb and fore-finger, impaired in the other fingers and in the fore-arm.

There are frequent convulsive twitchings of the left platysma, left orbicularis, and left levator palpebræ superioris. The pupils are equal and moderately contracted. On ophthalmoscopic examination, the discs look red, and the veins are large and tortuous, but there is no swelling.

The other special senses are normal.

The patient is an intelligent man. He is very drowsy. For the past two days he has slept almost continuously. When awake he is anxious and nervous.

The other organs seem normal.

#### PROGRESS OF THE CASE.

*On February 1st*, the urine contained a small quantity of albumen, and some tube casts, (hyaline, and granular).

After this date he rapidly got worse, and died on February 9th. No new nervous symptoms developed.

The *treatment* consisted in the administration of large doses of iodide of potassium and quinine, beef tea, milk, and stimulants.

The *temperature* averaged, morning 102·5, evening 103·3. The highest morning temperature was 104·8; the highest evening temperature, 104·6

The morning *pulse* averaged 106, the evening 115. The highest evening pulse was 148, the lowest 82.

The *post-mortem* was made twenty hours after death. The *lungs* were stuffed with miliary tubercles; the bases were consolidated; there were several small cavities in the left apex; some of the deposits were caseous. The *peritoneum* was studded with tubercles. The pelves of both kidneys were studded with tubercles, varying in size from a pin's head to a split pea.

*Encephalon.*—The arachnoid and pia mater were adherent to the brain substance in the neighbourhood of the right fissure of Rolando, and there were at this spot numerous tubercular deposits, surrounded by greenish lymph. The deposit of tubercles was greatest at the lower part of the ascending parietal and ascending frontal convolu-

tions. The brain substance was here invaded and softened. The softening extended through the various layers of cerebral cortex, but did not involve the white matter. The third or inferior frontal convolution was not affected. There were a few tubercular deposits in the left Sylvian fissure, and one or two in the right. The membranes over the left hemispheres and at the base were normal. The other parts of the brain were healthy. No caseous centre, outside the lungs, was found.

*Remarks.*—The lesion in this case was much more extensive than in the case previously related. The parts involved correspond to Ferrier's centres (a) (11), (10), posterior half of (9), (8) and (7).

The resulting phenomena were: Paralysis of the opposite fingers and thumb; unilateral convulsions of the opposite arm, leg, and side of face, followed by loss of speech and paralysis of the muscles convulsed. At the time of his admission paralysis of the opposite fingers and thumb; paresis of the opposite arm and leg, and convulsive twitchings of the platysma, orbicularis palpebrarum, and levator palpebræ superioris, were present.

It was impossible to tell the exact order in which the unilateral convulsions commenced, or the manner in which the various parts were affected. Too much stress, therefore, must not be put upon the fact that the leg, the centres of which, according to Ferrier, are situated at (1) and (2), was affected. It is, I think, probable that in the unilateral convulsion all the centres of the right hemisphere were discharged. We have already seen that in cases of limited convulsions the discharge tends to pass from the centres first affected, *i.e.*, the centres involved by the lesion, to other adjacent centres, until finally the fit becomes general. In this way it is easy to account for the affection of the leg, notwithstanding the fact that its centre, according to Ferrier, is far removed from the seat of the lesion.

The paralysis of the arm, leg, and left side of the face, were probably epileptiform, that is, they were due to the exhaustion which followed the excessive discharge in the fit.

The loss of speech was clearly of this character. It is especially important to note the fact that this loss of speech followed left side convulsions. This is, so far as I know, exceptional. In explanation, I may notice the circumstance that the patient had for some years been in the habit of using his left hand as much as his right. Possibly, therefore, the speech centre was not in him confined to the left hemisphere.

I shall afterwards mention a case in which left sided unilateral convulsions in a right handed person were associated with epileptiform speech. The case is, however, hardly parallel, for in it there was not loss of speech, only hesitation and difficulty in articulating.

Other points of interest in connection with the case are the facts—

1st. That the membranes of the base were healthy, and that very few tubercles were found in the Sylvian fissures.

2nd. That the optic discs were healthy. Other cases which I have met with prove the same fact, viz., that meningitis *of the hemispheres* does not give rise to neuro-retinitis.

3rd. The absence of headache. This was a very remarkable feature of the case.

4th. The previous good health of the patient, and the good family history.

(*To be continued.*)

---







# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

---

THE third monthly meeting was held in the Library of the Newcastle-on-Tyne Infirmary, on Thursday, December 13th, 1877, Mr. Morgan, president, in the chair.

The following gentleman was elected a member of the Society:—

James Munro, M.D., Barnard Castle.

The following gentlemen were proposed for election:—

J. Dalglish, M.R.C.S., Newcastle.

Thomas J. Turnbull, M.R.C.S., North Shields.

William Osborne Lambert, M.D., Sunderland.

---

## PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG presented the following:—

*Return of Admissions to, and Deaths at, the Newcastle Fever Hospital during  
the month of November, 1877.*

	Admitted.	Died.
Enteric Fever      ...      ...      ...	5      ...      ...	1

Mr. SPEAR said that in his districts of South Shields, Jarrow, and Hebburn, scarlet fever had during the past two months been prevalent, and in the first-named district this prevalence had assumed epidemic proportions. In this, as in so many other outbreaks, the truth had been abundantly exemplified, that in close and crowded rooms, and in the filthy spots of towns, scarlet fever, like other diseases of the zymotic class, exhibited a power of propagation and a virulence in attack that they seldom, if ever, assumed under other and more favourable conditions. The other most prominent feature of the present outburst was the influence which public day-schools have in the spread of scarlet fever. This was particularly noticeable during the first days of the epidemic, when the other conditions referred to had not presumably yet had time to exert their full effect. Thus, during the first fortnight, of 72 cases that he investigated, 50 were amongst the pupils, or the immediate relatives of pupils, of a single school. Great as was the benefit that enforced education was likely to confer upon the

masses, unless the laws in the matter, at present under discussion, were administered with proper machinery and due precautions, and unless the large public day-schools now established were managed with extreme care, the latter were likely to become, if he might use the expression, manufactories of disease—institutions for its dissemination. It behoved everyone connected with their management—school-boards and schoolmasters, as well as medical men having charge of infectious cases, to do all in their power, and they could do much, by insisting upon the necessity of precautions against infection, and by prohibiting the attendance at school of any child from a house in which infectious disease exists, to obviate this danger.

The PRESIDENT thought Mr. Spear's remarks very important. He suggested the appointment of a sub-committee to draw up recommendations to be sent to the managers of schools.

Mr. SPEAR, in reply to the President, said: The course the President had suggested might, he thought, be productive of good. The question was not so simple a one as some appeared to suppose, and it would have to be dealt with in a broad and comprehensive manner. The School Boards, from which, in his district, he had received every assistance, and upon whose co-operation he attached much importance, were beset by many difficulties in carrying out the provisions of the Education Act. It would not do for the Board or its officers to take every statement of alleged infectious sickness as an excuse for the non-attendance at school of children. Partial measures were not likely to be of service. He might mention as an instance a suggestion that had recently come before his own authority from the manager of a school, and which was to the effect that medical practitioners should be requested to send information of cases of scarlet fever in their practice to the school at which any of the children of the family were attending; and that they should be supplied with printed post-cards for this purpose. He had long ago, in order to obtain information himself, adopted a similar plan, and although he received much assistance, for which he was grateful, from medical practitioners, still he could not say that he could depend upon the regular or prompt receipt of such information as that referred to. If medical men did not forward him the information systematically, he was sure they would not do so, without legal compulsion and proper remuneration, for others. The plan suggested, therefore, would have relieved schoolmasters from responsibility—the moral responsibility of endeavouring to ascertain for themselves the presence of infectious sickness amongst their scholars and their scholars' families, while it would supply no sufficient compensatory machinery; he was obliged, therefore, to advise the authority

against its adoption. The evil might unquestionably be successfully coped with, but it would require the adoption of more important and comprehensive measures than these. In setting such measures on foot, a distinguished Association, such as the one he was addressing, would no doubt exert great influence.

Dr. ARMSTRONG mentioned a case in which a girl had been compelled by the School Board officer to attend school in spite of the fact that she was living in the same room with two scarlet fever patients, and notwithstanding Dr. Armstrong's instructions that she should be kept at home.

Mr. H. E. ARMSTRONG thought that under proper arrangements attendance might be carried on, especially if a more perfect system of registration of disease were adopted. Under such a system the Medical Officer of Health would be responsible, and not the School Board officials.

Mr. BROADBENT found the greatest difficulty in isolating patients, and in preventing children recovering from infectious diseases attending school.

The following were appointed a sub-committee (with power to add to their number) to draw up a report on the subject:—the President (Mr. G. B. Morgan), Dr. Frain, Mr. Spear, Mr. H. E. Armstrong, and Dr. Bramwell.

---

### PATHOLOGICAL TRAY.

Dr. ANDERSON showed three vesical calculi, and said: The cases in which I have performed lithotomy this year are three in number, one of them having been operated on twice within nine months.

The first was a healthy boy,  $4\frac{1}{2}$  years old. The ordinary lateral operation was chosen, and the calculus, which was small, easily extracted. The urine returned by the urethra on the fifth day; the wound was superficial in a fortnight, and the patient was running about quite well within the month. The bladder was carefully examined after the operation, and the stone presented no facets.

The second case was a man, aged 33 years, who had suffered very much from symptoms of calculus for eight months. His general health was in consequence much shattered. The stone, which was of a peculiar shape, was large and rough. It was also partially encysted, which gave a little trouble in its removal. Its weight was  $2\frac{1}{2}$  ounces, and phosphatic. The urine returned per urethram on the sixteenth day after the operation. The wound was superficial in three weeks, and he was able to go about in five or six weeks. A little chronic cytitis remains, but otherwise he is in good health.

The third case was my first patient, who had begun to show symptoms of calculus again, within eight months of the last operation. I again had him sounded under chloroform, and detected another stone. The lateral operation was again performed on the same side. The stone was very soft and friable, but with a hard nucleus, which with all the debris was removed, and the bladder washed out through the wound repeatedly after the operation. He again made a good recovery, with the exception of a slight attack of epididymitis, which delayed his convalescence only a very short time. The urine returned per *vias naturales* on the ninth day; the wound healed kindly, was superficial in three weeks, and he is now running about in good health.

I may mention that in children, where the wound and stone are small, I always use an ordinary pair of pocket case dressing forceps for extracting the stone.

Dr. PAGE showed—1. Two salivary calculi, and said: These two salivary calculi were extracted from Wharton's duct of an old man between 70 and 80 years of age. It is evident from the facets upon their surface that they had been in contact for a considerable time, though they only caused inconvenience just before their extraction, and then not so much in the mouth itself as in consequence of the sublingual glands becoming enlarged and painful from salivary retention. The calculi were readily removed by simple incision, after which all annoyance ceased.

2. A urethral calculus, and said: Six years ago, the gentleman from whose urethra this calculus was extracted, while walking in the streets of Aberdeen was suddenly seized with retention of urine. He had never in his life had urinary difficulty before of any kind. On applying to a surgeon, it was found the retention depended upon the impaction of a stone in the urethra just in front of the scrotum. With some difficulty and a good deal of pain and bleeding the calculus was extracted by means of forceps. From this time an increasing difficulty in passing water arose, and the stream became smaller and smaller. A few weeks ago there was a recurrence of retention, and I thought I could feel a stone in the same situation. It, however, was not impacted, for upon my patient lying down it disappeared, passing back, I think, into the bladder. On attempting to introduce a catheter, I found at the old seat of impaction a very tight and unyielding stricture, only admitting a No. 1 silver catheter, and that with difficulty. After catheterization for about three weeks I was able to pass Holt's dilator and to split the stricture. I then passed a No. 12 silver catheter, and this calculus, incrustated with phosphates, followed the instrument nearly to the meatus, through which it was readily removed. I think the stricture was produced by the efforts made six years ago to extract the impacted calculus.

Dr. ARNISON showed two calculi removed from the bladder of a child at an interval of a year, and said: The first and smaller of the two calculi was taken from the bladder of a boy of three years, in November, 1876, and weighed 75 grains. The second was taken from the bladder of the same boy, in November, 1877, and weighed 135 grains. It might possibly be suggested that the second stone was left in the bladder at the first operation; but in reply to such a suggestion were the facts that the surgeon, after lithotomy, almost instinctively searches the bladder to be sure that nothing is left behind, that the first stone has no facet from friction with another, and that the boy was entirely free from symptoms for three months after the operation. At the end of that time he passed a piece of soft muco-calcareous matter, and the symptoms at once set in. The symptoms first began when the boy was a year old, and his growth seemed to be arrested, for at the first operation he was like a child of eighteen months, and at the second like a child of two years. Recovery from both operations was rapid.

Mr. HOPGOOD showed a specimen of placenta prævia, and said: The specimen I show you this evening, Mr. President, is one of placenta prævia with membranes entire, and as it is rare to meet with one so perfect, I have ventured to show it to-night, instead of keeping it till next meeting. My patient was four months advanced in pregnancy, having had four children at full time and two abortions previously. All went on well up to November 23rd, when she had a little hæmorrhage, which continued for three days. It stopped, and came on again on the 29th, but only very slightly. On Monday morning at five o'clock she was disturbed by pains in her back, and hæmorrhage commenced, which continued until she sent for me at half-past four in the afternoon. I found her in a pool of blood, blanched, pulse almost imperceptible, and complaining in a feeble voice, if she moved or raised her head, that she lost her sight. Upon examination I found the placenta and a small portion of membrane protruding through the os. Hæmorrhage was still going on, and upon the slightest movement it came away in a stream as large as your finger. I at once introduced my hand into the vagina, and with two fingers removed this specimen which I now show you. As soon as the hand was removed she fainted, but the hæmorrhage ceased, and by lowering the head, using cold water to the face, and giving some gin, which was in the house, she soon recovered consciousness. As there was no hæmorrhage, I allowed her to remain at rest, gave her some strong extract of beef solution and brandy, and ordered her a mixture of sulphuric acid, opium, and chloric ether. She has had no hæmorrhage since, and is sufficiently recovered to sit up for a short time to-day.

Mr. MORGAN showed a recent specimen of encephaloid cancer of the femur, and promised to read the notes of the case at a future meeting.

Dr. EMBLETON showed several interesting photographs of the "Portuguese malformation," "the hairy man," &c., &c.

---

### EXHIBITION OF PATIENTS.

Dr. BYROM BRAMWELL showed a case of congenital under-development of the left eyeball or "microphthalmos," and said: The condition which this patient presents is a rare one. Dr. Argyll Robertson, of Edinburgh, whose experience is, of course, very great, tells me he has met with few cases, and that little is to be found on the subject in English literature. The patient is aged 19. The smallness of the left eyeball was first noticed six weeks after birth. The external parts of the eye are well formed; vision is almost *nil*, owing to the alterations in the optic disc and surrounding portion of retina. There is an interesting point in connection with the case. The mother, about a year before the birth of this child, received a severe blow on the right eyeball. The globe was destroyed. She was laid up for three months. This child was born about a year (her memory is not accurate on this point, it may be a little more or a little less) after the receipt of the injury. The connection is an interesting one, and it may be that the injury to the mother's *right* eye had something to do with the under-development of the child's *left* eye. The children born before and after this are naturally formed.

Mr. H. E. ARMSTRONG alluded to a case recorded by Dr. Whitehead, in which the mother had received an injury to the left eye; six children born afterwards were all more or less blind.

Dr. GIBB referred to the paper which he had read to this Society, many years ago, on "Maternal Impressions."

Mr. MORDEY DOUGLAS referred to two cases of "Maternal Impression:" in the first the mother was alarmed by the sight of an amputated arm, the child was born with one arm cut short; in the second case epilepsy (*le petit mal*) seemed distinctly due to a mental impression of the mother.

Dr. BRAMWELL explained that he had brought the patient before the Society, not as a case of "Maternal Impression," but as an example of a very rare congenital condition. Whether the malformation of the child was or was not a coincidence, he did not pretend to say.

Dr. HEATH showed a patient with diseased condition of the tongue, and said: The anterior third of the tongue presented a remarkable granular appearance, which the clinical clerk had compared in the hospital case-book to the roe of the herring. This condition was most marked on the dorsal surface, but was also present on the lower surface of the tongue. On looking at the granular surface with a lens, the papillæ, especially the furyiform, were seen to be enlarged. An oblique, rather deep furrow, formed an abrupt and marked line of separation between the normal and diseased portions. The disease had been noticed during the first year of life. There was no history of syphilis. The teeth did not present the ordinary characters of hereditary syphilis, although the lower teeth were somewhat small, and separated by slight intervals. The condition did not appear to Dr. H. to correspond with any published description of tongue disease. It was not ordinary hypertrophy, nor was it warty disease nor ichthyosis, nor the so-called eczema of the tongue. He should be inclined to term it granular tongue. The treatment had consisted in the application several times a-day, by means of a brush, of a saturated solution of boracic acid, and the irritation and soreness had partially subsided under this treatment.

#### ANTISEPTICS IN OVARIOTOMY.

The PRESIDENT said: Having at the last meeting of the Society stated that I believed Dr. Keith, of Edinburgh, did not employ antiseptics in ovariectomy, and it having come to my knowledge through a letter from Dr. Keith to Dr. Page, that Dr. Keith now and for some time has invariably used antiseptics, I desire to read some extracts from Dr. Keith's letter to the Society, in order that no erroneous impression may remain on a matter of so much importance. Dr. Keith says:—"I need hardly say, since I saw Mr. Lister's practice now some ten years ago, I have used antiseptics for all my operations. I hesitated for some time in ovariectomy, but my last 22 cases have been done under the spray with all antiseptic precautions, and of them I have lost two. One of the fatal cases was a burst dermoid cyst, with very extensive adhesions, and in the other the tumour weighed 97 lbs. I have not lost a simple case of ovariectomy for the last seven years. I never intend again to perform ovariectomy without antiseptics."

## A CASE OF ACUTE PLEURITIS: HYDROTHORAX, PARACENTESIS, INJECTION, RECOVERY.

By D. EMBLETON, M.D.

On the 25th of May, 1877, I was requested by my friend Mr. Sang to visit with him C. L., æt. 16, a tall growing youth, the most prominent features of whose family history were, that a brother and an uncle with three of his children had died of consumption. He had himself been generally healthy. This was the tenth day of an attack of pleurisy on the right side. The symptoms were, a severe stitch under the right nipple, checking breath and cough, heart labouring against the chest 140 times a minute, with breathings at 40, sounds of respiration rough and heard all over on both sides, at the base of right lung a fine crepitation, resonance on percussion less on the right than on the left side, cough troublesome, painful, hard, and dry, or nearly so, thirst, heat of skin, general distress, urine scanty, high coloured, but with abundant chlorides. Pills of calomel and opium, and a diaphoretic mixture were being taken, and a poultice applied to chest.

26th, Morning. P. 140, R. 38, temperature in right axilla 102°, pain much less, breathing easier, takes his food well—beef-tea and farinacea.

Evening. P. 125, R. 36, T. 100.°

27th, Morning. P. 125, R. 36, T. 101°. Urine paler and more plentiful, absence of pain, but diminution of respiratory murmur and of movement on right side, together with too loud vocal resonance and cœgophony; on the left side the respiration was puerile, and the expansion of the chest wall greater. Omit cal. et op., mist. Pot. acetat. Tinct digital, and sp ærth. nitr.

Evening. P. 118, R. 38 to 40, T. 102°, cough not urgent. Seidlitz powder.

28th, Morning. P. 120, R. 40, T. 102°, breathing softer and less laboured, pain in right side and back, tenderness on pressure all over right side.

Dulness on percussion is extending upwards, and respiration audible only at top in front and the usual place behind; there are preternatural clearness on percussion, and puerile respiration on left side.

Evening. P. 120, R. 40, T. 101°—same food and medicine.

30th, P. 122, R. 40, T. 101°, lies quietly on right side, on which there is total absence of respiratory murmur, bronchophony and cœgophony behind internal to scapula, dulness on percussion all over, and immobility, whilst the normal sounds and movements, on the left, are exaggerated.

There is somewhat more cough, and a clear mucous expectoration, the skin moist, the urine clear and not high coloured.

It being urgent to give him relief, Dr. Page was called in to perform paracentesis, and the same afternoon six pints of a fluid, mostly serous, but in part purulent and bloody, were evacuated. The puncture was made first with a small trocar and a canula having a long drain tube attached, the lower end being placed in a basin of water. Nothing but a little thick pus exuded, and it became evident that an obstruction existed, probably some false membrane, as is at times the case, had not been pierced through, a director was next introduced instead of the canula and trocar, and the puncture enlarged with a bistouri, when a copious gush of slightly muddy serum occurred carrying with it shreds of false membrane and a certain quantity of blood from the edges of the incision. Afterwards the remaining contents of the pleura were ejected in jerks, and in their intervals air was sucked in most freely during the movements of respiration. The operation was conducted under antiseptic precautions, that is, under the free application of carbolic acid spray; a short india-rubber drain tube was secured in the opening, a pad of oakum placed over it and the chest enveloped in cotton wool secured by a proper bandage. Patient bore the operation well. After the operation the pulse was 122, and the respirations 44; respiration was audible at the right infraclavicular region, and at about the upper half of the right side behind, the signs on the left remaining the same; percussion clearness corresponded to the respiratory murmur. Perfect rest, nourishing broths, mist. ferri sesquichl  $\mathfrak{z}$ i. t. d.

31st, morning after operation: had passed a good night and had good breakfast. P. 122, R. 40, T.  $99^{\circ}$ , great discharge during night, skin moist, urine free.

Evening. P. 124, R. 42, T.  $104^{\circ}$ , on removal of the dressings, air, serum, and pus mixed with blood spouted from the wound, driving out the tube, after which air rushed freely into the cavity, and these interchanges went on until the pleural cavity was emptied. At every dressing antiseptic precautions were used, and not the least smell of decomposition was felt in the treatment of the case.

The tube was replaced in the opening. Continue mixture, opiate draught at night.

June 1st, Morning. P. 120, R. 38.

Evening. P. 118, R. 36, T.  $102^{\circ}$ , passed good night, takes food well, discharge less in quantity and colour. Bowels confined.

2nd. P. 116, R. 38, T.  $104^{\circ}5$ , appetite good, but other symptoms increased. Bowels open.

3rd. P. 112, R. 32, T.  $100^{\circ}$ .

4th. P. 118, R. 32, T.  $101^{\circ}$ .

7th. P. 110, R. 32, T.  $101^{\circ}$ .

9th. Not so well, morning and evening the P. was 120, and R. 38. There had been no discharge from the chest since the 5th, the wound was, therefore, re-opened, and after a large quantity of fluid, at first clear and then purulent, had flowed out entirely, the pleural cavity was injected and washed out freely with a solution of carbolic acid in water in the proportion of 1 to over 100, and the drain tube re-inserted. No evil effects followed, but great relief to the breathing and all other symptoms.

The introduction of fluid into the chest was effected by the pressure exerted by a moderately high column of the solution upon the contents of a tube filled with the same, one end of the tube being placed in a vessel of the solution, at an elevation of two or three feet above the patient, and the other introduced into the wound in the patient's chest; by a stopcock, placed near the latter end, the downward flow of the injected solution could be controlled, and the vessel holding the solution had been graduated so as to show clearly the quantity of the fluid that passed into the chest.

Carbolic spray was used at every dressing until the discharge ceased. Next day the pulse had risen to 124, and the respirations to 28 per minute, the discharge was profuse, and air freely entered by the wound and was freely returned, the discharge was assisted by moderate pressure upon the right side of the chest, and by causing the patient to assume, for a few minutes, the erect posture in bed. *Mist. ferri et quin, citr. ʒi. t. d.*

By the 12th the pulse had fallen to 112 and the respirations to 36. And, on the 15th, they were 100 and 32 respectively per minute, discharge purulent, but much less in quantity. The chest was again washed out as before. No pain, cough, or dyspnœa. Appetite good, bowels open, strength increasing.

On the 18th the pulse was 100 and respirations 24. Seven ounces only of the lotion could be passed into the pleural cavity, they were returned mixed with pus. When the lotion was thrown in the respirations rose quickly to 50 per minute, and fell soon after the fluid was returned to 24. No pain was felt at the time or after. Is rapidly gaining flesh and strength. Half-a-glass of stout given.

21st. P. 110, R. 22. Appetite good, bowels act of themselves. About 8 ounces of stronger carbolic lotion injected and returned with less pus. The tube irritating the lung, which had expanded a good deal, was shortened by one-half. The respiration again rose to 48 with the injection, and again fell rapidly on the fluid being evacuated, the pulse was little altered. The fluid injected seemed to make no impression on the patient's feelings. Lung clear down to nipple. He walks from one room to another. His finger-ends appear rather clubbed, but there is no red line on gums.

27th. P. 100, R. 26. T. 100. Injection of carbolic lotion 1 to 40, discharge diminishing daily, strength increasing.

30th. Right intercostal spaces have fallen in perceptibly, and the movements of right are much less than those of left side. He sits up daily; injection returned with less pus, discharge takes place mostly with expiration. P. 120, R. 30, T. 100. No cough, dyspnoea, or night sweats.

July 4. P. 86, R. 28, A. good, sits up daily. ʒviii of injection admitted and discharged.

23rd. On the 11th, had been rather feverish for two days, fluid then returned, after injection of ʒvii, more purulent than before. Right side shrinking still, he was going about the house daily with good appetite and regular bowels, only ʒiii. p. of carbolic solution can be injected, and they were returned with little pus.

A few days after no fluid could be injected and the discharge gradually ceased. He was sent into the country, where he stayed a month.

In September he returned fatter and more muscular, the breathing free and easy, without pain or uneasiness even on full inspiration, no cough, right shoulder less depressed, chest on that side expanding much more freely. No discharge.

November 10th. Much improved in condition, little difference in height of shoulders. Denies having any complaint whatever. Towards the end of the month was taken to the South of England for the winter.

The attack commenced on May 15th. Paracentesis was performed on the 30th. Discharge ceased at the end of July, eight weeks after the operation; and recovery was complete. The success of the treatment is, it is believed, mainly to be attributed to the assiduous use of the antiseptic means employed.

The PRESIDENT said he had quite determined in all future cases of empyema to begin the treatment by a free opening into the chest.

## SHORT NOTES OF TWO CASES OF CHLORODYNE POISONING.

By JAMES MURPHY, M.D.

Mr. PRESIDENT AND GENTLEMEN,—Having recently twice attended a patient suffering, on each occasion, from the effects of an over-dose of chlorodyne, I thought a brief description of the symptoms might be of sufficient interest to bring the matter before the Society, as cases of poisoning by chlorodyne do not appear to be very common, and the amount taken the second time was very large.

On the 15th of June I was hastily summoned to see a Mr. X., who was supposed to be dying from the effects of poison. Taking my stomach pump with me, I went as quickly as possible to the house, which was only a few hundred yards distant, and there found Mr. X. lying on the floor perfectly unconscious, breathing heavily, and with a blanched appearance, pupils normal and pulse very feeble. I at once introduced the tube of the stomach pump, which was done with the greatest ease, and injected a little warm water, which, when it was pumped back again, smelt strongly of chlorodyne; this I did a few times, the patient not being able to offer any resistance, so intense was the coma. When I had done it for the fourth time the patient, much to my astonishment, opened his eyes, withdrew the tube with his hand, got up off the floor without any assistance, sat on a chair, and was to all appearance quite well. I waited in the house for a little while to see if all would continue well, but after about 10 minutes' conversation Mr. X. begged to be excused, saying he felt rather tired, and accordingly went to bed. I then learned the following particulars.—Mr. X. has been for many years a strict teetotaler, and was at the time secretary to a Temperance Society. About three years ago, suffering intensely from toothache, he applied to a chemist for something to relieve the pain, when he was supplied with a bottle of chlorodyne. Finding such speedy relief from this, he always kept some in the house, and partook of it whenever he was attacked by pain of any sort; and found that, by taking a sufficiently large dose, he could generally get ease. Some time after this he became involved in pecuniary troubles,—being engaged in a large business—and he perhaps, not unnaturally, reasoned that what appeared to be a panacea for his bodily ills would not be an improper remedy to minister to a mind diseased. And he accordingly endeavoured to find that solace for his cares in chlorodyne which others seek for in a liquor which is better known and more universally esteemed than even Collis Browne's Chlorodyne. He had been drinking chlorodyne all the day, so that it was difficult to calculate how much he had taken, or what quantity represented the camel's straw. I had not

long to wait, however, to find out what an enormous quantity he could take and still recover, for on that day week I was again sent for at 10 o'clock in the morning, and, on my arrival, found Mr. X. in pretty much the same position as on my previous visit, but this time his breathing, instead of being heavy, could scarcely be heard, his pulse could not be felt, and, on raising his eyelids, both pupils were widely dilated, thus differing from his previous symptoms in several respects. I immediately introduced the tube, and after having washed out the stomach with a large basin-full of water, I had the satisfaction of seeing the patient open his eyes and show signs of returning animation. After a little he was helped to a chair and I tried to get him to take a cup of strong coffee, but he became exceedingly violent and threw about his hands in a convulsive manner, after a little he had a severe rigor during which I got him covered with blankets, and as it was passing away I succeeded in getting him to drink some coffee, when he became somewhat better, but continued in a drowsy and stupid state for the whole day and part of next, taking food only when very much pressed, wandering in his speech, which was addressed to imaginary personages, and only answering questions when well roused up, and then even only very indistinctly. This time I was able to determine accurately how much he had taken, as his wife had seen him with two unopened bottles, each containing two ounces, half-an-hour previous to his taking ill, and, on searching him the bottles were found, one completely empty and about a quarter of the other gone. He must thus have taken the very large amount of two ounces and a half of Collis Browne's Chlorodyne, which is, I believe, a larger dose than has ever been recovered from.

---

## ON PARALYSIS OF THE PHARYNX OCCURRING IN AN INFANT.

By D. DRUMMOND, M.D.,

PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN.

THE subject of this case is a little boy, aged 14 months, of healthy appearance, fully grown for his age, is able to stand by himself, and can walk with slight assistance. He can articulate a few words, and has six teeth, during the advent of which he suffered but little, having (according to his mother) had "no trouble up to two months ago, except the vaccination and the bronchitis." At that period of his existence it was observed that, instead of drinking in his usual manner, a great effort had to be made to swallow the fluid offered to him, part of which was wont to run over the lips. He became restless at nights, and very costive, frequently screaming as if in acute pain. His mother becoming alarmed, especially at the difficulty in swallowing, took him to a surgeon in the neighbourhood, who proceeded to divide the frenum linguæ, not that there seemed to be any evidence of the tongue being tied, or otherwise abnormal, but apparently under the conviction that something must be done, and certainly with the expectation of improvement, but none followed the operation. After this the child was seen by several medical men, with whose opinion on the case and line of treatment I am, unfortunately, unacquainted, except one gentleman, a friend of my own, who immediately preceded me in the care of the case. He, I believe, assigned as a cause "ulceration of the back of the throat," and treated the affection accordingly, local application, &c. I regret very much that I have not been able to see my friend, for he has since left the town; and until I am assured by him that there were ulcers, I shall be inclined to regard the story as apocryphal, for when the patient came under my care a very short while after, a careful examination, laryngoscopical and otherwise, elicited nothing—indeed, the soft palate, larynx, and as much of the pharynx as could be seen by reflected light, were perfectly normal in appearance, the movements of the larynx and palate being unimpaired, the tongue could be protruded and moved at will, the lips and the elevators of the jaw normal in their movements, the act of vomiting in no way interfered with, and the nares open, the act of respiration through them uninterrupted.

When offered a drink of milk and water, the mixture which formed his usual liquid food, and to which he seemed very partial, he grasped the mouth of the vessel, usually a bottle, tightly in his lips, and sucked in the fluid without difficulty, then threw back

his head and opened his mouth, partially protruded the tongue, which he depressed well and formed into a cup shape, the tip being raised slightly above the lower lip served in a measure to prevent the escape of the liquid; then commenced a series of cautious and deliberate efforts to swallow. At each attempt a small quantity flowed over the tongue and lips, soiling still more the already well-stained clothing. At length, after seven or eight efforts, the mouth was emptied, there was no choking or spluttering, the glottis being apparently well guarded, none of the fluid was ejected through the nose, the whole process being gone through in a calm and deliberate manner, but had to be repeated, as I have described, every mouthful; not so when solids were dealt with, for bread and butter could be swallowed with ease, or perhaps a slightly longer time was required to effect the process than a healthy child would take, but to all intents and purposes the act of swallowing solids was unimpaired.

There was no paralysis of the ocular muscles, and the few words the child could articulate were not pronounced in a nasal tone.

From observing the patient's attempts to swallow, and from examination of the parts essential to and intimately connected with the process of deglutition, I was led to the conclusion that the dysphagia depended upon paralysis of the pharynx; and viewing the case as such, I thought its rarity was sufficient apology for bringing it before this Society.

I was from the first met with the grave difficulty, how to account for the paralytic lesion. It seemed to me that there were but two hypotheses to choose from—either that it was an obscure case of lead poisoning, or one of diphtheritic palsy of a very rare form.

In support of the plumbism theory, not much can be advanced, for in a case like the one under consideration, the diagnosis must of necessity depend very much upon the history. Had the afflicted muscles been in a region more easily controlled, the diagnosis of lead palsy might, I think, have been retained or rejected by enlisting the service of electricity, but it is impossible to gain much information by this means when it is the pharynx that is affected. The establishment of the diagnosis of lead paralysis in doubtful cases, by the aid of electrical examination, dates at all events, as far back as 1854, in which year Meyer published his very interesting case bearing on this. Since then Dr. Walter Smith, Althaus, and others have thrown light on the subject.

On interrogating the mother of my patient closely as to the possible introduction of lead into his system, she stated as an unimportant fact that he was in the habit of playing with a rattle adorned with leaden bells, which he constantly sucked. The question arises, whether metallic lead ever does produce saturnine

intoxication. I know many assert that it does not, but I am of opinion that it does, for, if I mistake not, file cutters suffer from the affection from using a clamp of metallic lead, in which the file is placed whilst being cut, and Dr. Walter Smith has reported an undoubted case caused by chewing little bits of lead in place of tobacco (May number of *Dublin Medical Journal*, 1877), and Meyer records (in his book on *Medical Electricity*, translated by Hammond) a case in which the patient was poisoned by making use of snuff which had been packed in lead foil. Chemical analysis revealed the presence of a considerable quantity of lead in the snuff.

But even assuming that metallic lead will induce a palsy, the fact that only the pharynx is affected, and that not one of the usual signs of plumbism exists, would in itself render the diagnosis very doubtful. I was very reluctant to give up this diagnosis, for I greatly feared that, that of diphtheric palsy would not afford me much more consolation; nor does it. It is true very mild cases of diphtheria do at times occur in which the real nature of the disease is only recognised by the occurrence of a progressive palsy some weeks after the throat symptoms have disappeared, but these cases are very rare. In my case, there was certainly no history of diphtheria; and although the mother was under the impression that her child was treated for ulceration of the throat, yet, as I have already stated, I am inclined to doubt her version of the matter. This is evidently no ordinary case of diphtheritic paralysis. Professor Erb, of Heidelberg, treating of diagnosis of diphtheritic paralysis, writes as follows:—"Diphtheritic palsy is characterised and readily recognised even in cases in which the antecedent pharyngeal or other form of diphtheritis has not been certainly known to exist, by the sequence and the peculiar combination of the symptoms of paralysis, its commencement with paralysis of the velum palati, nasal twang in the speech, difficulty in swallowing, and the occurrence of mydriasis, paralysis of accommodations and paralysis of the muscles of the eye, the remarkable retardation of the pulse, the progressive pareses and paralysis of one or all four extremities, collectively constitute an extremely characteristic picture of the disease." In which picture the case under consideration only supplies one object, and that, it would seem, rather an insignificant one, *i.e.*, difficulty in swallowing.

Ortel, of Munich, asserts that the paralysis may confine itself to a limited region, but he adduces no cases in which the pharynx alone was affected.

Senator, of Berlin (writing in "*Volkmann's Sammlung Klinischer Vorträge*"), shows that, as a rule, only one variety of filaments in a nerve are attacked at once, at times the motor, at times sensitive, and again the reflex apparatus may be interfered

with ; and that a particular group of muscles may be paralysed whilst those adjoining are not, even though they are supplied by filaments from the same nerve. He gives as an example the vagus nerve, which supplies so many various organs and is possessed of such variety in function. He compares the effect of the division of the vagus in the neck of an animal, with the same nerve impaired by diphtheritic poison, and shows that whilst in the former the whole group of organs and functions are affected, in the latter, the filaments supplying the palate, pharynx or larynx, or those for the heart or respiratory apparatus or œsophagus or stomach and duodenum, may be separately paralysed.

A peculiarity in the case, already noticed, is the apparent ease with which solid food could be swallowed, whilst fluids present such a grave difficulty. Ortel (already quoted) and other authors have called attention to this fact, viz., that in diphtheritic palsy much greater difficulty is experienced in swallowing fluids than solids. In my case, I think, the fact can be partially explained, for the pharynx alone being paralysed, and the act of swallowing, so far as the pharyngeal constrictors are concerned, being quite an involuntary one, may not solid food act as a stronger excitant to reflex action than liquids, and in this way induce the palsied muscles to take on sufficient action so as to dispose of the bolus?

A few words concerning treatment, unlike diphtheritic paralysis in its usual form, so far, this case had baffled all treatment, for the last four weeks I have been Faradizing the pharynx, but no improvement has resulted, the dysphagia being at present just as pronounced as when I first saw the child. At the same time I must say I have a strong impression that the case will ultimately recover, and recovery will take place under a more regular and systematic electrical treatment than hitherto has been practised, owing to the fact that the child is an out-patient at the Children's Hospital, and could only be seen twice a-week.

Dr. HUME thought the difficulty in swallowing might be due to paralysis of the muscles which close the larynx. This would explain the ease with which solid food was swallowed better than the reflex theory advocated by Dr. Drummond.

Dr. DRUMMOND said Dr. Hume's suggestion had occurred to him, but he had rejected it. No fluid ever got into the larynx. The child never spluttered, nor coughed when swallowing fluids, which he certainly would have done if the muscles closing the larynx had been paralysed.

## CASES OF INTRA-CRANIAL TUMOUR.

By BRYOM BRAMWELL, M.D.

*(Continued from page 61.)*

**CASE III.**—*Injury to head. Change in mental disposition. Headache. Vomiting. Convulsion. Optic neuritis. Paresis of left arm and leg. Sudden attacks of loss of power in both arms and both legs, the loss of power being much greater in the left than in the right. Changed mental condition. Temporary mania. Imbecility. Coma. Death. Interior of skull cap studded with minute spiculæ. Tumour in the middle of the right frontal lobe, involving the superior frontal convolution.*

D. M., æt. 40, married, formerly a sailor, lately a pitman, was admitted on 22nd March, 1875, complaining of headache, fits, and loss of power in the left arm and leg.

*Previous History.*—He was an unusually strong healthy man until a year ago, when a quantity of coal fell upon his head. He was laid up for a fortnight, and has never been well since. He has suffered from intense headache, and has had several convulsion fits. His wife says his mental condition is quite altered. Instead of being quiet and good-tempered, he has become irritable and passionate. She thinks his illness was partly caused by mental anxiety. (He got wrong with a neighbour's wife; the husband was so distressed that he killed himself). For twenty years he has been a hard drinker. He has not had syphilis..

*State on Admission.*—He is an unusually strong muscular man. He has a silly look, and frequently bursts into a meaningless laugh. He seems to answer questions fairly well. Some days he is much more stupid than others. He sleeps well, dreams frequently, and often grinds his teeth.

Two inches above and slightly behind the right ear there is a cicatrix, the result of the injury mentioned above.

The headache is at times agonising. It is generally frontal, sometimes occipital. It is not worse at night. When he stoops he feels very giddy, and the pain is increased.

*Special Senses.*—He has not being able to see with his right eye for more than twenty years (the result of an accident). Sight in the left eye is good. The pupils are equal and moderately dilated. *On ophthalmoscopic examination*, the disc in the left eye is greatly congested and swollen, the veins are very large and tortuous, and the vessels are at points obscured. In the right eye the choroid is extensively atrophied; and scattered over it are numerous deposits of black pigment; the disc is of a dirty brown colour, the vessels

very small and numerous. *Hearing, taste, and smell* are natural.

*Muscular System*.—He often suddenly falls to the ground in consequence of loss of power in the left arm and leg. There is no loss of consciousness and no convulsive twitchings. These attacks are quite different from the fits which he had before admission.

There is decided loss of power in the left arm and left leg. Muscular power in the right arm and right leg and in both sides of the face is also impaired, but to a very much less extent.

The muscles on both sides of the body are powerfully and symmetrically developed. He walks without any halt, but the gait is peculiar: he takes a few quick steps to the left, then a few quick steps to the right, often breaking into a short run. There is no tremor in any of the muscles.

There is no loss of *co-ordination*.

*Sensibility* seems natural.

*Speech* is natural.

*Reflex action* is more marked in the right leg than in the left.

The *bowels* are costive. The *tongue* is clean. He often vomits. The vomiting generally occurs first thing in the morning immediately after getting out of bed.

The *digestive, circulating, and respiratory systems* are normal.

The *urine* contains a considerable quantity of phosphates, but is otherwise normal.

The *treatment* consisted in the administration of large doses of iodide and bromide of potassium and of ergot of rye; moderate salivation; the application of cold to the head, and of blisters to the back of the neck.

The *progress of the case* is seen in the following notes:—

*April 6th*.—He has been very much worse for the last few days. The headache is intense. He looks stupid. The face is congested. He has several times tumbled down from sudden loss of power in the left side. The attack is not attended with loss of consciousness nor with convulsions. After the attack the paresis in the left arm and left leg and left side of the face is much greater, there is, too, decided weakness in the right arm, right leg, and right side of the face. The pupils for some days have been widely dilated.

*May 10th*.—He is so much worse that he cannot get out of bed without assistance.

*May 14th*.—There is a marked change in his mental condition. He is suspicious of everything and everybody. Thinks his wife has been unfaithful to him. He wanders about the ward trying to escape, and says he will do for himself and others if he does not get out. He will take neither food nor medicine, thinking everything is poisoned. He has a wild, haggard expression—the conjunctivæ are deeply injected. The muscular weakness is no longer present.

*May 15.*—He was “quite wild” last night, and had to be held down by several men. He was to-day sent off to the Asylum.

A few days after his admission to the Asylum the excitement passed away. He remained in a stupid, “silly” condition until the 18th of September, 1875, when he became comatose, and died on September 20th.

Through the kindness of my friend, Dr. Wickham, I visited him twice after his admission to the Asylum, and was present at the post-mortem, which was made twenty-four hours after death.

*Autopsy.*—The face was pale, the pupils equal and moderately dilated. Two inches above the right ear there was a cicatrix more than an inch in length. The bone beneath the cicatrix was normal.

On removing the calvarium many minute sharp projections were found on the inner surface of the skull cap. These little spiculæ were pretty equally distributed over both frontal and both parietal bones. Several large pacchionian bodies projected through the dura mater. One at the tip of the right frontal lobe had made a considerable excavation in the frontal bone. The dura mater over both hemispheres was thickened. The vessels on the surface of the brain were full of blood. The arachnoid and pia mater were thickened and at parts adherent. The adhesions were most marked over the right frontal lobe. The convolutions were greatly flattened; the sulci effaced. The ventricles were considerably dilated.

The upper right frontal convolution was softened and gelatinous. The softened part was of a pinkish colour. There was a large patch of similar softening in the middle of the white matter of the right frontal lobe. The other parts of the brain were normal. There was no embolism. The contents of the encephalon weighed 59 ounces, (brain  $50\frac{1}{2}$  oz., cerebellum  $8\frac{1}{2}$  oz.)

The *other organs* were normal.

The degenerated portion of brain was placed in Müller's fluid and forwarded to Dr. Herbert Major. Dr. Major was unable to give an opinion as to the exact nature of the lesion, for the part did not harden sufficiently to permit of a section. From its recent appearance I am inclined to think it was a glioma.

*Remarks.*—In this case there was no difficulty in diagnosing an intra-cranial tumour, and that it was situated on the right hemisphere, was proved by the presence of temporary *left* sided hemiplegia. There were no other localising symptoms, except perhaps the “altered mental condition.” The view that the mental facilities are located in the frontal lobes has always been a favourite one with physiologists. And it finds some support from Ferrier's experiments. He found that electrical irritation of the antero frontal lobes in the monkey was in general attended with negative results (page 230). “Removal or destruction by the cautery of the antero-frontal lobes is not

followed," he says, "by any definite physiological results," (page 231). "And yet, notwithstanding this apparent absence of physiological symptoms, I could perceive a very decided alteration in the animal's character and behaviour, though it is difficult to state in precise terms the nature of the change." "While not actually deprived of intelligence, they had lost, to all appearance, the faculty of attention and intelligent observation," (page 232). Ferrier believes the antero-frontal lobes are the centres of inhibitory or inhibitory-motor acts, and says, "the centres of inhibition, being thus the essential factor of attention, constitute the organic basis of all the higher intellectual faculties; and in proportion to their development we should expect a corresponding intellectual power," (page 287).

The peculiar mental condition of this patient exactly resembled the mental condition of a man who was admitted under my care on October 1st, 1874, suffering from an intra-thoracic tumour.

In that case\* a large cyst was found in the left frontal lobe. The position of the lesion in the two cases was exactly the same, the one being in the right and the other in the left hemisphere. It is perhaps worthy of remark that in the case in which the lesion was on the left side there was a decided condition of aphasia, whereas in the case of D. M., speech was unaffected.

In both cases the superior or first frontal convolution was invaded, and yet there was nothing abnormal noted with regard to the condition of the eyes, nor was there any apparent loss of extension of the opposite arm and hand. This is noteworthy, for Ferrier places the centres for these movements, (5) and (12), in this region.

Another point of interest is the fact that the motor power in the side opposite the lesion was in both cases often suddenly lost and quickly regained, the temporary paralysis not being preceded by any convulsion.

I would draw special attention to the fact that in the case of D. M. these temporary attacks of left-sided hemiplegia were associated with decided paresis of the *right* arm and leg, *i.e.*, the arm and leg on the *same* side as the lesion.

This fact seems to support Dr. Hughlings Jackson's theory that an epileptic discharge of *one* hemisphere may give rise to convulsions of *both* sides of the body, the spasm travelling to the second side by the route of the direct fibres, and not through a secondary affection of the other cerebral hemisphere, pons or medulla.

Dr. Hughlings Jackson "has not demonstrated the occurrence of any paresis on the second side, but he supports his proposition by the fact that two sets of wasted fibres "descend" into different columns of the cord; into the lateral column of the opposite side (first side); and into the anterior column of the same side

\* See *British Medical Journal*, 3rd March, 1876.

(second side), the wasting in the lateral column affecting that part of it where there are most fibres of smallest diameter, the part of the anterior column being that where there are the thickest fibres of that column—the largest of all in the cord.” Dr. Jackson draws attention to the fact that the different course of the two sets of descending fibres of necessity implies differences of kind of representation of the corresponding muscles of two sides of the body in each hemisphere.—(*West Riding Hospital Reports*, vol. vi., page 292.)

The peculiar spiculated condition of the inner table of the skull, which was found in this case, is a pathological appearance which I have not before observed.

Another point of interest was the great weight of the brain—59 ounces. Turner\* gives the average weight of the adult human brain as 49 to 50 ounces. The average weight of the cerebellum in the adult male is stated by Quain and Sharpey† to be from 5 to 4 ounces. In this case the cerebellum weighed  $8\frac{1}{2}$  ounces. Its proportionate weight to the contents of the encephalon was, therefore, very much above the average, which, according to Quain and Sharpey, is as 1 to  $8\frac{4}{7}$ .

The next four cases which I have to record are cases of intracranial syphilis. One died; the other three are still alive, and tolerably well.

**CASE IV.**—*Left hemiplegia. Optic atrophy. Syphilitic choroiditis, Motor power regained before sensibility. Convulsion. Death. Syphilitic tumour pressing upon the upper parietal convolution and causing extensive softening.*

R. S., æt. 41, chemist, single, was admitted on Nov. 12, 1874 suffering from left hemiplegia.

*Previous History.*—Patient has led a dissipated life, and has had syphilis. The date of the primary affection could not be ascertained. It was, however, many years ago. For the past ten years he has been an opium eater. For a year at least his eyesight has been failing. He has suffered from headache and syphilitic rheumatism. Three months ago he awoke one morning to find that he had completely lost the power of the left arm and leg. He has never, to his knowledge, had a fit. Motor power has been slowly returning since the attack.

*Present Condition.*—The patient's hair is grey and he looks very much older than his years. There is partial loss of power in the left arm, leg, and left side of the face. Tactile sensibility and sensibility to pain are absent in the left arm and leg. His mental condition is very much impaired. Memory almost gone. (My brother, under whose care he was for some time before admission,

\* *Introduction to Anatomy*, page 296. † *Quain's Anatomy*, page 571.

told me he frequently suffered from severe pain in the head, a fact which the patient denied.)

Both optic discs are atrophied, and there is well marked syphilitic choroiditis. The patient is fat and jovial. His appetite is voracious. He sleeps very soundly, and frequently wets his bed. There are some characteristic nodes on the left tibia. The urine contains a considerable quantity of phosphates.

The other organs seem healthy.

*Progress of the Case.*—Under full doses of iodide of potassium he improved considerably. Motor power was very greatly regained. Sensibility partly returned; he could, for instance, tell when the arm was pricked, but could not localise the impression.

*On December 5th, 6th, and 7th,* he suffered from severe headache.

*On December 8th* he was seized with a convulsion. The nurse who saw him in the fit stated that both arms and both legs were affected. The convulsion was followed by profound coma, lasting for twelve hours, and by death.

*The autopsy* was made eighteen hours after death. The skull cap was natural. The dura mater was firmly adherent along the vertex. It was much thickened, especially over the posterior part of the right hemisphere. A nodulated tumour, the size of a large walnut, was situated at this part of the intra-cranial cavity. The tumour sprang from the dura mater, and pressed upon the upper parietal convolution. The cerebralsubstancesurroundingthe tumour was almost diffuent. The softening extended through the whole of the upper and middle parietal, and the upper occipital convolutions. The white substance was extensively softened and destroyed. The membranes over the other parts of both hemispheres were thickened and opaque. The other parts of the brain were healthy.

There were two or three cicatrices on the upper surface of the liver, the other organs were healthy.

On section, the tumour was very firm and dense, in fact almost cartilaginous. In places it was of a yellowish green colour, and on microscopical examination was found to consist of small round and angular cells and delicate fibres. The cells were about the size of lymph corpuscles, and were in rows, in some parts there was an imperfect concentric arrangement.

*Remarks.*—This is a good example of the “apoplectic form” of intra-cranial syphilis, that form in which the acute symptoms set in suddenly with or without loss of consciousness, and with hemiplegia. The patient awoke to find himself paralysed. Had it not been for the condition of the fundus oculi, the headache, and the syphilitic tibia, the case would certainly have been mistaken for one of sanguineous apoplexy. The fatal attack, too, exactly resembled the effects of a large hæmorrhage.

The lesion was an extensive one, the parts of the brain immediately invaded were the upper and middle parietal and the upper occipital convolutions. The subjacent white matter was extensively destroyed. The exact position of the lesion is seen in the diagram, and corresponds with Ferrier's centres (1) and (13).

I cannot insist on the case as a localising one, for I am unable to define the exact extent of the lesion. This was the first case of the sort I had met with, and I did not at that time appreciate the importance of the subject. Unfortunately, too, a drawing was not made while the specimen was before me.

One of the chief points of interest is the fact that motor power was regained before sensibility. Ferrier places the tactile centre in the hippocampal region,\* and says clinical observers "have demonstrated that rupture or disorganisation of that part of the internal capsule or peduncular expansion of the crus cerebri, which lies external to the optic thalamus, causes hemianæsthesia of the opposite side of the body."†

Another point of interest is the fact that the patient had a voracious appetite. Ferrier found that in monkeys "after removal or disorganisation of the occipital lobes the appetite for food is abolished, the animals refusing that which formerly they exhibited a great liking for."‡ In this case, in which a portion only of one occipital lobe was destroyed, the appetite instead of being diminished was increased.

I do not lay any stress upon this feature of the case, for I particularly wish to avoid any straining of facts either for or against the localising theory. A voracious appetite is a very common symptom in cases of dementia. It is not at all surprising therefore, that it was present in this case. I have no note as to whether it was an early or a late symptom. This is unfortunate, for Drs. Lawson and Bevan Lewis state as the results of observations made at Wakefield, that it is an early symptom of intra-cranial tumours.—*West Riding Hospital Reports*, vol. vi., page 125. I shall afterwards relate a case corroborative of this opinion.

CASE V.—*Male æt. 23. Syphilis seven years before admission to hospital. Severe secondary and tertiary symptoms. Headache and epileptiform convulsions six years after the primary affection. State on admission:—Intense headache, worse at night, and confined to the left side of the head: Periostitis of left temporal bone: Convulsions of two kinds; "Slight," without loss of consciousness, confined to the muscles of the right side of the face and tongue; "General," preceded by a well-marked aura, affecting the whole body, and attended with loss of consciousness. Right-sided post-epileptic hemiplegia: Post-epileptic Aphasia:*

\* The Functions of the Brain, page 175. † Ditto, page 181 and 182. ‡ Ditto, page 194.

*Loss of memory: Dimness of vision: Double optic neuritis. Great relief under full doses of iodide of potassium. Relapse after a year's interval. Re-admission to hospital. Symptoms as before. More impairment of mental powers. Obstinate constipation. Attack of profound coma lasting for four days. Recovery. Mental power considerably regained. Abatement of headache and fits.*

R. C., æt. 23, single, a sailor, was admitted on 29th August, 1875, complaining of intense pain in the left temple and left ear, difficulty in speaking, and fits.

*Previous History.*—At the age of 16 he contracted syphilis. The attack was a very severe one. He has never been well since. Fifteen months ago he first began to suffer from pains in the left side of the head. Soon afterwards he began to take fits. Four months ago his speech became affected. For several weeks past the headache has been intense.

*Family History.*—Unimportant.

*State on Admission.*—He is thin and emaciated. There are many large white cicatrices, the remains of tertiary ulcerations, on the arms and legs. The left temple is swollen and tender to the touch, the swelling is hard and extends backwards towards the left ear.

*Expression and Mental Faculties.*—The expression is dull and heavy. It may be called “epileptic,” for so characteristic is it that my friend, Dr. Herbert Major, in coming into the ward, at once said “that is an epileptic.” He is intelligent and well educated. His memory is very defective.

*Sensory Functions.*—He complains of great pain over the left side of the head, and of numbness in the right thumb and right side of the face. The pain is always worse at night, and is sometimes agonising. He sleeps badly, and is much disturbed by dreams. Sensibility seems otherwise natural.

*Speech* is hesitating and difficult. He seems unable to get out the word he wants to use, often stopping in the middle of a sentence. He stammers and repeats the same word over and over again. He can repeat the alphabet after me readily enough. When he tries to say it himself, he sticks after a few letters, and says he cannot say the rest. He is, too, unable to write it. Twitchings of the facial muscles are very frequent during the attempts to speak.

*Special Senses.*—*Sight* is considerably impaired in the left eye; fairly good in the right. The right pupil is irregular and fixed (old iritis). On ophthalmoscopic examination, marked neuro-retinitis is seen in both eyes. The effusion of lymph about the left disc is considerable. *Taste* and *smell* are natural. *Hearing* in the left ear, both to external and skull sounds, is, he

says, gone. Hearing in the right ear is normal. When a tuning fork in vibration is placed over the painful and swollen left temple, the skull sounds are not heard in the right ear even when it is closed by the finger. (This was repeated several times, and always with the same result.) The skull sounds are heard in the closed right ear when the tuning fork is placed over any other part of the cranium.

*Muscular System.*—The *gait* is somewhat peculiar, he sways from side to side every third or fourth step. There is no paralysis, but he says he has loss of power in the right side after the severe fits.

*The convulsions* are of two kinds:—"slight" and "severe." In the slight form the muscles of the right side of the face and tongue are alone affected, and he does not lose consciousness. In the "severe" fits all the muscles of the body are convulsed. The severe fit is preceded by a well-marked aura—a stinging sensation in the tip of the right thumb, which quickly passes to the fingers of the right hand, then up the arm to the right cheek; at this stage he becomes unconscious, and is convulsed. The spasm begins in the right hand and right side of the face. It soon becomes general. The right side is always more violently affected than the left. His friends could not define the *exact* manner in which the fit commenced, and I was never fortunate enough to see the commencement of a severe fit.

The severe convulsions are generally followed by loss of power in the right side of the face, and in the right arm; sometimes in the right leg. Speech, too, is always worse after a bad fit.

The *co-ordination* and the *reflex functions* are natural.

The *temperature* is 99° F.; the *pulse* 100.

The *other organs* are normal.

The *treatment* consisted in the administration of iodide of potassium (gr. xxx. three times a day), and the application of the tincture of iodine over the left temple.

*The subsequent progress of the case was as follows:—*

On September 9th, he was almost free from pain, and was sleeping well. The swelling and tenderness over the left temple had almost disappeared. The power of hearing was returning in the left ear. There had been no severe fit since his admission.

On September 10th, he fell off his chair and remained unconscious for two hours. There was no convulsion. When he came to himself he could not speak, and there was total paralysis of the right arm, right leg, and right side of the face. I saw him at 3 p.m., eight hours after the fit. He could then say a few words, and was beginning to regain the power of moving the right arm and leg. He could move his tongue in any direction, but was some time in making any particular movement with it after having been told to do so.

*On September 12th* he was very much better. The paralysis had almost passed away. The urine contained large quantities of phosphates.

*On October 1st* it was noted : For some days past the face has been swollen and puffy about the eyelids. The oedema exactly resembles the oedema of Bright's disease. It is worse in the morning. There is neither pain nor redness. The eyeballs are free from any inflammation. The urine contains no albumen, but is loaded with phosphates.

*On October 7th* the iodide was discontinued on account of dyspepsia. A mixture containing quinine and iron was substituted.

*On October 14th* he had a severe fit, but it was not followed by paralysis.

*On October 17th* another severe fit.

*On October 21st*, two severe general convulsions. To commence the iodide again.

*On October 28th* he was so much better that he applied to be made an out-patient, and was discharged accordingly. Since the iodide was re-commenced, there had been no severe convulsion. He was free from headache, sleeping and eating well. There was no pain nor tenderness over the temple. Sight was improved. The swelling of the discs almost gone, the margins were, however, still hazy, and there was some lymph about the vessels.

He continued to attend as an out-patient and continued to improve. Speech became more natural. The fits less frequent and less severe.

*On January 6th* he felt so much better that he took a situation as a brewer's travelling clerk. He had had no severe fits for some months. The slight fits now consisted of a choking sensation in the throat. He stated that he was unable to read, for after reading for any time he was invariably attacked with a slight fit. Fixing his eyes on any object had not the same effect. He continued to take the iodide in the same dose.

*Relapse.*—Towards the beginning of October, 1876, the headache returned; the fits became more frequent; his mental condition underwent a marked alteration, he became stupid and childish, his memory, which had greatly improved, again failed.

*On October 30th*, he was re-admitted to the Infirmary under my care. For several days he had been quite "wild" and unmanageable. He had a fit in the train on his way to hospital. On admission he was stupid and excited, the tongue was very foul, the pupils contracted. His mother stated that the position of the pain had changed. It was now felt in the back of the head, slightly more on the right than on the left side. A brisk purge was administered, and ice bags were applied to the head. The iodide (gr. xxx. thrice daily), was again prescribed.

*On November 3rd*, he was improving; the quantity of iodide was increased (gr. xxx. five times daily).

*On November 20th*, he was very much better, the fits less frequent, the headache less severe.

*On November 27th*, he was worse, shouting out continually because of pain in the back of his head. Opiates, bromide of potassium, and chloral hydrate were all in turn prescribed. The dose of iodide was reduced.

*On January 9th*, he was free from pain, but very stupid and imbecile. At 6 a.m. he had a severe convulsion. At 12 a.m. I witnessed a slight fit, the spasm was confined to the muscles of the right side of the face, head, and neck. Both orbiculares were affected, the right more powerfully than the left. The head and eyeballs were turned to the right side. The fit lasted twenty or thirty seconds. I did not see its commencement. He was apparently conscious during the attack. Before it was quite over he was able to answer questions.

*On January 12th*, it was noted, he has been very costive for many days. Two drops of croton oil have several times been administered, and only produced a moderate purge.

*On February 13th*, he was much worse. On this day he had 18 or 20 slight fits.

*On February 12th*, he was comatose, passing his urine and fæces in bed. The left pupil was dilated, and motionless. The head was drawn to the left side. He was freely purged with croton oil, and cold water was applied to the head.

This condition of profound coma continued for five days. He was fed with beef tea enemata. His condition seemed hopeless, but strange to say, he recovered.

*On February 18th*, he was sensible but unable to speak, the lower jaw seemed retracted.

*On February 20th*, a papular eruption, exactly like the eruption of smallpox, appeared on the face and upper half of the trunk. The eruption was most abundant on the face. Some of the papules subsequently became pustules, but none were umbilicated.

He was ordered ten drops of the liquor strychninæ.

From this date he improved. *On March 22nd* he was better than he had been for months; fairly sensible, speaking moderately well, walking about the ward.

*On March 23rd* he had a severe convulsion. The iodide was repeated. (gr. xxx. three times a day). A mercurial bath every other day was ordered.

*On May 31st.*, he was discharged considerably improved, but still unfit for work. He has continued to attend from time to time as an out patient, and when last seen, December 11th, 1877, was fairly well.

## REMARKS.

This case is a good illustration of the ups and downs of cerebral syphilis, and strikingly illustrates Heubner's remarks on this subject. He says: "But what gives to this disease (*i.e.*, cerebral syphilis) its special peculiarity is not the somewhat rare occurrence of a rapid transition into symptoms leading to a fatal end, but rather the fact that this cerebral disturbance, apparently so severe, and hardly capable of recovery, may sometimes under suitable treatment, but sometimes without it, be completely removed, and again give place to an almost normal condition. The peculiarity which, in addition to the great variety of the symptoms, gives to cerebral syphilis this paradoxical, vacillating, startling, character is this, that its accidents just as they develop unforseen up to a certain intensity, may again vanish in the same remarkable way." (*Heubner on Syphilis of the Brain and Nervous System, Ziemssen's Cyclopaedia of Medicine*, vol. xii., page 327.)

The practical lessons to be drawn from such cases are 1st, that however grave the symptoms may be in a case of intra-cranial syphilis the prognosis is never utterly hopeless. 2nd, That in every case of intra-cranial tumour, an energetic antisiphilitic treatment should be adopted. So far as our present therapeutical resources go the syphilitic is the only form of intra-cranial tumour which can be influenced by treatment.

By an energetic plan of treatment, I mean the administration of large doses of iodide of potassium (grs. xxx. to xl., three times a-day), and if this is not sufficient, mercury, in some form or another, until moderate salivation is obtained.

In the administration of the iodide I at once begin with a full dose (grs. xxx. three times a day) I have no hesitation in continuing this dose for months. I have never seen any bad result other than a temporary stomach disorder produced by it. I mention this matter for it has been supposed that the prolonged use of the drug gives rise to albuminurea. This particular patient took grs. xxx. three times daily for a period of twenty months without the slightest injurious effect.

The affection of speech and the temporary paralysis were post-epileptic, that is, they were due to the exhaustion following excessive discharge of nerve force in the convulsive seizures. This form of speech disorder is thus described by Dr. Clouston: \* "In one set of cases after the patients have had a very bad single fit or a series of them, it is found that for the next twenty-four hours the tongue is tremulous and there are occasional twitchings of the face when they begin to speak; they articulate very slowly indeed, and somewhat indistinctly as if in want of a powerful enough nerve current being sent down from the brain to the muscles of articulation.

\* *Edinburgh Medical Journal*, April, 1876, page 881, 2.

After a few words have been articulated there is a hesitation, and then the patient stops in the middle of the sentence and cannot go on ; this appearing to result partly from his forgetting what he was going to say and partly from motor exhaustion in the muscles of speech. There is in fact a combination of convulsive paretic and aphasic motor symptoms with enfeebled ideation and loss of memory—all these being in my opinion clearly traceable to exhausted energy of the convolutions."

This form of aphasia, "epeliptiform or post-epileptic aphasia," is very generally seen in those cases of unilateral convulsions, which begin in the right side of the face, often in those which commence in the right hand, less frequently in those which commence in the right leg, and seldom after unilateral convulsions affecting the left side of the body. In this respect, this form of speech affection follows the general rule, "genuine" aphasia, as you well know, accompanying right-sided hemiplegia, and depending upon a destroying lesion of the lower left frontal convolution. It is probable that the lower right frontal convolution is also a speech centre, but the left is the "driving" or "leading" side.

It is interesting to note the fact that the slight fits were induced by reading.

Another part of some interest was the œdema of the face, exactly resembling, as it did, the œdema of Bright's disease, and associated with phosphaturia, not albuminuria. I have noted the same fact in two or three other cases.

Another noteworthy feature of the case was the obstinate constipation, and the fact that when the coma passed off, an eruption, at first papular, afterwards pustular, appeared on the face and trunk, croton oil having been freely administered as a purgative. This was probably only a coincidence, for Professor Sydney Ringer tells me he has never heard of the internal administration of croton oil producing pustules.

Dr. FAWCETT mentioned a case, at present under his care, in which a pustular eruption chiefly resembling smallpox had occurred in the course of secondary syphilis, and while the patient was taking large doses of iodide of potassium. From the mere appearance of the eruption it was impossible to say that the case was not smallpox. There were, however, no general symptoms, no back-ache, no higher temperature. The eruption, too, had continued longer than a smallpox eruption would have done. There was never the characteristic smell which is seen in cases of smallpox during the stage of scabbing.

*(To be continued.)*





# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

---

THE fourth monthly meeting was held in the Library of the Newcastle-on-Tyne Infirmary, on Thursday, January 10th, 1878, Mr. Morgan, president, in the chair.

The following gentlemen were elected members of the Society:—

J. Dalglish, M.R.C.S., Newcastle.  
 Thomas J. Turnbull, M.R.C.S., North Shields.  
 William Osborne Lambert, M.D., Sunderland.

The following gentlemen were proposed for election:—

J. C. Reid, M.D., Newbiggin.  
 Charles J. Sutherland, M.R.C.S., South Shields.  
 Bertram Janish, M.B., C.M., The Dispensary, Newcastle.  
 Charles A. Patrick, M.B., C.M., Do.

---

## PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG presented the following:—

*Return of Admissions to, and Deaths at, the Newcastle Fever Hospital during the month of December, 1877.*

	Admitted.	Died.
Typhus ... ..	3	—
Continued Fever ... ..	1	—
Scarlet Fever ... ..	2	—
Measles ... ..	1	—
Total ... ..	7	—

Dr. E. C. ANDERSON mentioned the leading features of a case of Hodgkin's disease which he had under treatment.

---

## PATHOLOGICAL TRAY.

Dr. J. W. BRAMWELL showed a specimen of meningeal cerebral hæmorrhage resulting from an injury, and said: The patient from whom this brain was taken, Mr. President, was admitted to the Tynemouth Union Workhouse at the beginning of December last. At the time of his admission he was a mere skeleton. He had

large bed-sores over both hips. He was in a drowsy, semi-conscious state; he did not understand what was said to him, and could not articulate plainly. His right pupil was dilated, the left small and contracted. There was no paralysis of the arms nor legs. Food was swallowed naturally, but the fæces and urine were passed involuntarily. He remained in this condition for ten days, when he became convulsed, both eyes being turned to the right side. He died the day after the convulsions came on. At the *post mortem* examination, on removing the skull cap, the dura mater was found to be thickened and opaque. On examining the occiput this fracture was found running from the root of the left zygoma upwards and backwards as far as the junction of the parietal bones. Its union was membranous, the point of the knife being easily inserted into the crack, and the edges of the fracture are rounded and smooth. The dura mater was then reflected, and this blood clot was found. It covers the whole anterior two-thirds of the left cerebrum. It is in a partial state of organisation, especially towards the posterior part. On reflecting the clot, the convolutions are seen to be flattened, and about the junction of the posterior and lateral lobes of the cerebrum this cavity was found. The finger can be easily introduced into it to the extent of an inch. It was filled with blood and serum. The man, who was æt. 40, was admitted to the hospital without any history of his having had an injury to his head, and there were no external marks of violence. It was afterwards ascertained that he had fallen down stairs, when drunk, about seven weeks before admission.

Dr. HEATH showed—1. A large tumour weighing 3 lbs., which he had removed from the groin of a patient, whose photograph was also exhibited with the tumour *in situ*. Dr. Heath said he considered the tumour to be glandular; it had grown slowly, and had at one time been mistaken for a hernia. The patient had, indeed, worn a truss up to within a short period of the operation. The growth appeared to have originated at the saphenous opening, and was partly covered by the fascia lata. It was encapsuled, and within the outer layer of the mass was a second capsule. The operation was unattended by difficulty; there was free bleeding from the first incisions, but after the main artery,—a large short branch proceeding immediately from the femoral and dividing into three branches,—was tied, the remaining dissection was accomplished without difficulty.

2. The cone-like termination of a remarkable conical stump; a neuroma seated on the median nerve; a water colour drawing of the patient showing the original stump; and the patient himself with his present stump. The boy had been run over some four years ago by a cart, and in consequence of the injuries received

the left arm required amputation in its lower third, and the left leg above the ankle. The boy made a good recovery, and the stumps healed well; but after a year or so the arm stump became the seat of pain, the wound broke out, the soft parts were retracted, and the bone protruded, until, at length, the remarkable appearance shown in the drawing was produced. The first operations had been performed in the Edinburgh Infirmary. In the second operation care had been taken to cut the anterior flap long, so that it could be turned back over the end of the bone. Dr. Heath thought the neuroma had something to do with the change in the condition of the stump.

3. A mass of calculous fragments held together by adhesive mucus. The mass had been removed a few days previously by lithotomy from an old gentleman nearly eighty years of age. At the time of the operation the fragments were firmly agglutinated into a compact mass, which was taken out of the bladder by the ordinary lithotomy forceps. The mucus had now partially dried up, and the fragments were seen to be pieces of stone varying in size, some being not larger than a small pea, others being considerably larger, and angular. They seemed to have formed portions of more than one stone, and to be the result of lithotritic operation. Dr. Heath understood that the patient had undergone several crushings by Sir H. Thompson, in London. After the patient's return home, about five weeks ago, the symptoms of stone had returned, and he had also suffered from severe and obstinate cystitis. When he came under Dr. Heath's care his sufferings were excessive, and having ascertained by sounding that there was what seemed a calculous mass in the bladder of some size, Dr. Heath thought that, under the circumstances—unfavourable enough for any operative procedure—lithotomy was the most promising operation, and therefore removed the calculous formation exhibited by cutting. Up to the present time the patient was doing as well as could be expected.\*

The PRESIDENT related particulars of a case in which the stump was quite as conical as in the patient exhibited by Dr. Heath.

Mr. S. W. BROADBENT showed a specimen of fractured spine, and said: The patient from whom this specimen was removed came under my care thirteen years before his death. He was a pitman, and while at work was injured by a fall of coal. The spine was fractured. There was complete loss of motion and sensation in the lower extremities, and paralysis of the bladder and rectum. A marked symptom was obstinate priapism; it continued for a month. After the acute symptoms passed off, the patient continued fairly well; his appetite became voracious.

\* Since this was written the patient has died.

Latterly he suffered from great and continuous pain in the abdomen. Large opiates were administered for many months; before death he was taking as much as a scruple of morphia per day. He died somewhat suddenly. A regular *post mortem* was refused, but I was allowed to remove this portion of the spine. The fracture involved the 10th, 11th, and 12th dorsal vertebræ. The spinal canal at the point of fracture is completely obliterated.

The President, Drs. Anderson, Heath, Banning, and Byrom Bramwell related particulars of cases of fracture of the spine, with special reference to the presence of priapism.

---

### EXHIBITION OF PATIENTS.

Dr. WICKS exhibited a case of empyema in a child treated by incision and drainage tube, and gave the following particulars of the case:—E. J. M., aged 7, girl, came under observation on September 30th last, suffering from pleuro pneumonia affecting the right side. She continued to progress satisfactorily till October 12th, when I found she had passed a very restless night, and complained of pain in the affected side. On the 14th a physical examination revealed the presence of effusion in the right pleural cavity. On the 21st, as the fluid had accumulated in spite of ordinary treatment, I intimated to the friends the necessity for operative interference. They were not anxious that anything should be done, and it was with difficulty I got permission to operate on the following day, if there should be no improvement. The right side measured nearly  $1\frac{1}{2}$  inches more than the left; she had a distressing cough, and great dyspnœa. On the following morning (22nd) I was called suddenly, about eight o'clock, to see the child, as she was thought to be dying. She had had a "fainting fit," but was somewhat rallied, and propped up in bed when I arrived. The dyspnœa was urgent, and she was extremely weak. Some brandy was given, and I went for Mr. Angus, who kindly came to perform the necessary operation. The aspirator was used, the puncture being made in the seventh interspace in the infra-axillary region; about four ounces of thin inodorous pus escaped, when the needle became occluded; a large one was carefully introduced, but in a short time the flow stopped, and it was completely blocked up by shreds of fibrine. Altogether about nine ounces of pus were evacuated, but as the greater part still remained, we determined to make an incision and insert a drainage tube. Accordingly on the next day (23rd) I administered chloroform, and Mr. Angus made an incision at the spot where he had punctured, and about a pint of pus escaped, mingled with large

shreds of fibrine. A drainage tube was inserted, and a pad of "tenax" placed over it, secured by a broad bandage. In the evening the little patient was sleeping soundly, respirations 42. There had been almost no cough during the day. 24th. Fully a pint of pus had drained away during the night, which had soaked through the dressings and collected in a pool on the bed. The drainage tube was removed, the cavity syringed out with warm carbolic lotion—1 to 100—and dressed as before. 25th. She had passed a very good night; pulse 100; temp.  $98.8^{\circ}$ ; resp. 34; and here I may mention that from the time of the operation, and during the whole course of the after treatment, the temperature was never above  $99.4^{\circ}$ , which was registered on the morning after the operation, previous to which the temperature was  $103^{\circ}$ , and the pulse varied from 120 to 130. The discharge is considerably less, cavity washed out, and dressings applied as before. 28th. Pulse 90; resp. 32. Since last date the cavity has been daily washed out with warm carbolic lotion—1 to 80—and the drainage tube gradually shortened. The discharge has almost entirely ceased. The appetite, which before the operation was gone, has improved daily, and she is now taking chop, milk, beef-tea, and eggs, having asked two days ago if she might be allowed a chop. The child looks well. 31st. To-day there was no discharge, and the lotion returned as clear as it was injected, the wound healing at edges. As she complained of great pain when the drainage tube was inserted, it was removed and cut quite short. Nov. 1st. On removing the dressings to-day, the drainage tube was found to have escaped from the pleural cavity. There was not a trace of discharge on the dressings. I tried to inject the lotion, gently pressing the nozzle of the syringe into the wound, but failing, did not persist. The percussion note is good anteriorly, and the respiratory murmur distinctly heard as low down as the wound both anteriorly and posteriorly. There is an evident flattening of the right side. 6th. To-day the affected side, on measurement, is half an inch less than the other. Since the wound has closed the child has been up daily. 8th. The patient is rapidly improving, and gaining in flesh and strength. The affected side measures fully three-quarters of an inch less than the other. 23. Apex of lung is still somewhat flattened, the percussion note is good, and the respiratory murmur is heard as low down as the eighth rib anteriorly, but there still remains at the lower, and especially the posterior parts, a decided dulness with feeble breath sounds. The general health is good. Dec. 31st., ten weeks after operation. The area of dulness at base of lung is considerably less, and the breath sounds more distinct. The expiratory murmur is prolonged. Her condition, on the whole, is most satisfactory. The friends say, "she never was so well in her life

as she is at present." The treatment, after operation, consisted of the internal administration of quinine and tincture of iron, with a liberal diet of beef-tea, chop, milk, eggs, and wine ; and after the wound had closed, of syrup of the iodide of iron, with cod liver oil, and the application of tincture of iodine externally.

Dr. HEATH exhibited a case of compound fracture of the femur, and an apparatus for treating the same.

---

## NOTES UPON A CASE OF LEUCOCYTHÆMIA, ACCOMPANIED BY MARKED OLIGAPYRENÆMIA.

By E. C. ANDERSON, M.A., M.B., CANTAB.; A.K.C., LOND.

MR. PRESIDENT AND GENTLEMEN,—Phœbe P——, æt. 26½ years, the wife of a miner, first came under my care on September 30th ult. She was then exceedingly thin and anæmic in appearance, with face a pale lemon-yellow; pupils dilated, but sensible to action of light; palpebral conjunctivæ quite white; scleroticæ bluish-white; slightly swollen, puffy and very dark-coloured under and around the eyelids, and lips blanched. Her hair was becoming very grey, and her weight from about 7 to 7½ stones.

She was married eighteen months ago, has one female child, aged four months, and, up to the time of her confinement, had always enjoyed remarkably good health, being naturally stout, robust, and of florid complexion.

Family history good. Mother had rheumatic fever before Phœbe P—— was born; died two years ago, and lay in bed, from same, for nearly nine years.

From the date of, or soon after her confinement, which was natural and easy, she gradually became paler, thinner, weaker; and, having already been some time confined to bed, was under treatment when I was called in to attend upon her.

Sept. 30.—*Lungs*.—Respirations quick, 30 to the minute, tremulous, sybillant rhonchi at bases, front and back. Percussion dull at bases, particularly of left lung behind. Complained of dry, hacking cough.

*Heart*.—Action quick, feeble, with loud systolic bruit heard over the whole area (but most distinctly at the base), in the axilla and through the back.

*Pulse* small, thready, and compressible, 124 per minute. *Liver* normal. *Spleen*, area of dulness increased. *Kidneys* normal. *Skin* hot and dry. *Tongue* large, moist, clean. *Feet* and *legs* somewhat puffy and swollen. *Urine* rather pale, moderate in amount; sp. gr. 1·015; acid; no albumen.

Temperature in axilla, 105·2 F.; in the rectum, 106·2 F.

As food, I ordered milk, milk and the yellow part of egg mixed, with to each half-pint, one dessert spoonful of brandy; and beef-tea; severally in table-spoonful quantities, repeated every fifteen minutes.

As medicine, I prescribed the following:—℞ sodii salicylatis ʒss.; Liq. am. acet. (P.B.) ʒss.; Tinct. cinch. co. ʒi.; Tinct digitalis ℥xv.; Sp. chloroformi (P.B.) ℥x.; Aquæ ad. ʒi.; misce 4 tâ. q. horâ sum<sup>d</sup>; and flying blisters to chest at bases, back and front.

Oct. 1. Mane T. 103·6 F., pulse 132; vespere T. 103·5 F., pulse 120.

Oct. 2. Mane T. 104·0 F., pulse 124; diarrhœa (five motions), cough frequent and distressing. To take one of the following pills every three hours:—℞ Pulv. ipecac. gr. v.; Pulv. opii gr. v.; Pulv. digitalis gr. xx.; Ext. hyoscamī q. s. misc. fiant pil. xx.

Ten p.m.—T. 103·0 F., pulse 120. Blood in the stools and on the bulb of the thermometer after having taken the temperature.

Oct. 3. Mane T. 100·6 F., pulse 108. No diarrhœa.

Oct. 4. Mane T. 100·6 F., pulse 120; vespere T. 101·5 F., pulse 120.

Finding that hyperpyrexia had remitted, and with the hope of combatting the anæmia, I prescribed the following:—℞ Liq. ferri perchlor ℥x. Liq. strychniæ ℥x.; Potas. chloratis gr. x.; sp. chloroformi (P.B.) ℥xv.; Infus. digitalis ad ʒi.; m. ft. m. 4 tâ. q. horâ sum<sup>d</sup>.; and to continue with the pills.

Oct. 5. Mane T. 101·5 F., pulse 120. Ten p.m.—T. 101·5 F., pulse 120

Oct. 6. Mane T. 100·4 F., pulse 120. To continue the medicine. Vespere 9·30.—T. 100·2 F., pulse 110.

On this occasion, being anxious to test the relative proportions of the red and white corpuscular elements, I took with me a microscope (Beck's Foreign Pattern), with  $\frac{1}{4}$ ,  $\frac{1}{8}$ , and  $\frac{1}{16}$  inch object-glasses (Powell and Lealand), abstracted from dorsum of last phalanx of index finger a small drop of blood, and then and there examined it. I counted 23 white to about 500 red corpuscles in the field. The red did not form rouleaux, but lay flat and in clumps, and some were considerably larger than others. Some of the white corpuscles were very large, and all were exceedingly amœboid in character. In order to still further verify the number of leucocytes in the field, I afterwards caused to pass through it, by irrigation, a minute drop of dilute acetic acid. I had not at this time the advantage of having read Dr. Byrom Bramwell's very able report of Six Cases of Pernicious Anæmia, or I should have instituted a more searching examination, and I deferred it until I considered my patient in a fit state to undergo the fatigue of it.

Oct. 7. Mane T. 100·1 F., pulse 106. Vespere T. 100·6 F., pulse 110. Sphygmogram.

Oct. 8. Mane T. 100·9 F., pulse 106. Vespere T. 100·4 F., pulse 104.

Oct. 9. Mane T. 100·4 F., pulse 110.

Oct. 10. T. 100·4 F., pulse 112.

Oct. 11. T. 100·4 F., pulse 120.

Oct. 12. Merid. pulse 90. To continue medicine.

Oct. 13. T. 100·4 F., pulse 108. do.

Oct. 15. P. 96. To continue medicine.

Oct. 17. T. 100·0 F., pulse 88. To discontinue the digitalis.

Oct. 19. Pulse 86, fuller and stronger. To take a mixture containing quinine, iron, and strychnine.

Oct. 20. Pulse 88.

Oct. 29. To omit sp. chloroformi as contributing to nausea and a disposition to retch.

Nov. 2. I called, *but she was out*.

Nov. 3. Complains of cough. To return to the pills, and to continue medicine.

Nov. 19. Gaining in weight; losing much of the pallor and yellowness, and beginning to have colour. Sphygmogram taken.

Jan. 4, 1878. She continues, although less regularly, the medicine, but not the pills.

About three weeks ago she was weighed, and had then gained at least two stones. (Absolute weight  $10\frac{1}{4}$  stones with clothes on.)

She walked down this evening for the purpose of having Electrolysis of 15-cell power with three insulated needles applied to the glandular enlargement of the right side of the neck. While still somewhat sallow, she has considerably more colour, and the conjunctivæ evidence a richer quality and increase in quantity of blood. She has now little or no cough.

Jan. 5. She was out with the child in her arms. The glandular enlargement firm and somewhat contracted.

*Remarks.*—This case presents much resemblance and some great contrasts to the six cases above alluded to. The gradual and increasing exhaustion; the apparent causelessness of it; its post-parturient occurrence; the pallor and lemon-yellowness; the condition of the conjunctivæ and scleroticæ; the dilated pupils; the condition of the lips, eyelids, feet, and legs; of the liver, spleen, kidneys; the hæmorrhage per rectum, probably due to hæmorrhoids, perhaps to intestinal lesion higher up; the glandular hypertrophy; the clean, large, flabby, moist tongue; the tendency to vomiting; the anæmic bruit; and, lastly, the diminution in number and variableness in size of the red corpuscles, are among the points of resemblance. The continued hyperprexia in the earlier stage of my attendance; the condition of hypostatic congestion of the bases of the lungs, particularly of the left, fast passing into acute pneumonia, may be, and the great increase in the number of leucocytes, evidently are among the contrasts.

That under the administration of iron, quinine, strychnine, and digitalis, in the latter stages, the case satisfactorily progressed there cannot, I think, be a doubt. Notwithstanding this, however, I shall be tempted, with the advantage of Dr. Bramwell's experience of arsenic in pernicious anæmia, to try its efficacy in leucocytosis.

Dr. BYROM BRAMWELL said he had listened with great pleasure to the very interesting case which Dr. Anderson had just read. He was a little doubtful as to its exact nature. The symptoms were profound anæmia, with some enlargement of the spleen and lymphatics of the neck, and with a moderate excess of the white corpuscles of the blood. It was certainly not a case of progressive pernicious anæmia. The very fact that recovery took place, and was so obviously due to treatment, made him doubt whether it were a case of leucocythæmia. Nor was the increase in the white blood corpuscles conclusive as to this point. In many conditions the white corpuscles are somewhat increased, and Dr. Bramwell thought the increased proportion which was present in this case (23 white to 500 red) might be accounted for by the other conditions, which were present, and did not necessarily imply that the case was one of true splenic leucocythæmia.

Dr. GIBSON said he also had listened with much pleasure to the paper. He had been particularly interested in the amæboid movements of the white cells which Dr. Anderson had described.

Dr. ANDERSON, in reply, thanked the members for their kindly criticisms, and said he himself had felt some difficulty as to the nature of the case, hence he had given it two names, leucocythæmia with oligapyrenæmia.

---

## CASES OF INTRA-CRANIAL TUMOUR.

By BRYOM BRAMWELL, M.D.

*(Continued from page 92.)*

The next case is one of great interest:—

CASE VI.—*Male, æt. 34. Syphilis seven years before admission to hospital. Epileptic convulsion. Good health for a fortnight. Second convulsion unattended by loss of consciousness and followed by left-sided hemiplegia. Admission to hospital five weeks after second fit: great emaciation; headache; marked neuro retinitis with perfect vision; left hemiplegia. Uninterrupted recovery under iodide of potassium. Good health for several months. Severe injury to head. Return of the fits. Convulsions occurring every four minutes and lasting without intermission for fifteen days. Re-admission to hospital; great emaciation; bed sores; left hemiplegia; severe convulsions unattended with loss of consciousness, left side chiefly affected. Speedy recovery under chloral and iodide of potassium.*

J. M., æt. 34, single, foreman bricklayer, was admitted on November 4th, 1875, suffering from left hemiplegia.

*Previous History.*—He was a very healthy man until seven years ago, when he contracted syphilis. The attack was a slight one, and was followed by few secondary symptoms. For two years or more he has suffered from “rheumatic pains,” which are worse at night. His present illness commenced seven weeks ago. One evening while measuring a road he fell down unconscious. He was carried home to his lodging, which was close at hand. He came to himself in about twenty minutes, felt stupid, and found he had bitten the left side of his tongue. The next day he felt all right, did his work as usual, ascending a chimney forty feet high. He continued well for a fortnight, and was then seized with a second attack. This time the fit occurred as he was getting into bed. He did not lose consciousness, but was violently convulsed, the left side being chiefly affected. He called for help, and was attended by his landlady. The fit lasted ten minutes. When it passed off he found that he had completely lost the use of his left arm and left leg. He has been in bed ever since, and has lost a great deal of flesh. He has occasionally suffered from headache.

He has been a sober man.

*Family History.*—Good.

*Condition on Admission.*—There is very great, but not total, loss of power in the left arm and left leg. There is also a trace of paralysis in the left side of the face. The muscles of the body generally are very much wasted, those of the left side not more so

than those of the right. *Reflex* action is greater in the right than in the left leg. *Sensibility* is fairly normal, except in the parts supplied by the left median nerve.

The memory is evidently defective ; he seems dazed. He sleeps well. He frequently complains of headache ; the pain is referred to the vertex and right side of the forehead.

*Special Senses*.—*Sight* is perfect ; the *pupils* are equal and moderately dilated ; he can read with ease a card at the other side of the ward. On ophthalmoscopic examination, marked neuroretinitis is seen in both eyes. *Taste* and *smell* are natural. *Hearing* is good for æreal sounds ; the skull sounds, he says, are not heard in the left ear.

*Speech* is natural.

The *bowels* are costive. The *urine* is sometimes passed involuntarily. It contains phosphates in considerable quantities. The *heart* is normal. The radial pulse 64, weak. None of the superficial arteries are in the slightest degree atheromatous. The temperature is 98° F.

The other organs are normal

*Diagnosis*.—It was concluded :—

1st. That the hemiplegia was post-epileptic.

2nd. That the epileptic convulsions had resulted from the irritation produced by the presence of a syphilitic lesion—in all probability a gumma.

3rd. That the gumma was situated on the convex surface of the left hemisphere. (The symptoms did not warrant a more exact localisation.)

The chief facts which determined this opinion were :—1st. The presence of double optic neuritis.

2nd. The fact that the hemiplegia followed a unilateral convulsion in which consciousness was not lost.

3rd. The history of headache.

4th. The history of constitutional syphilis.

And the negative facts :—

5th. The healthy condition of the heart, kidneys, and arterial system. (Embolism being thus excluded.)

6th. The age of the patient. A strong fact against sanguineous apoplexy.

*Treatment*.—Half a drachm of the iodide of potassium three times daily (90 grs. in 24 hours) was prescribed. On December 6th the dose was increased (150 grs. in the 24 hours).

*The subsequent progress of the case* is seen in the following notes :—

*December 4th*.—There is immense improvement ; he can walk about without assistance. Sight is now somewhat dim. On ophthalmoscopic examination, this was found to be due to deposits of lymph. Small doses of mercury were ordered.

*January 7th.* For the past few days he has complained of headache. His stomach is out of order. The iodide to be suspended, and to have a free purge.

*January 31st.* He was discharged to-day fat and well. He has gained three stones in weight since his admission. There is not a trace of paralysis. Sight in the left eye is still a little dim.

*February 14th.* Says he never felt better in his life. Has been at work for a week. Has several times walked across a narrow plank, thirty feet from the ground, without the slightest inconvenience. He was strongly advised to be careful, and to continue the iodide.

*April 22nd.* Has not had any symptoms since last date. Is working regularly.

I heard nothing more of him until February 23rd, 1877, when he was carried into the ward in a fit. His friends stated that he had been perfectly well until *September 23rd*, 1876, when a scaffold on which he and others were working fell to the ground. His right clavicle was broken, and he received a severe cut on the back of the right side of the head. He was laid up with the effects of this accident for a month, and, during the whole of that time, suffered a great deal of pain in the head. At the end of the month he returned to work. He worked regularly, in spite of not feeling well, until February 9th, when he took a fit.

The convulsion came on about 8 o'clock at night, and lasted for five minutes. He had hardly "come out" of the first when he took a second. A few minutes after the second he took a third. He has continued to "work in the fits" ever since. They have never left him for more than five minutes at a time during the whole fifteen days. The left side has been the one chiefly convulsed. He has been quite sensible during the whole time. The left side became paralysed after the "first few fits."

*Condition on Re-admission.*—He is a most miserable spectacle: Emaciated to the last degree. The conjunctivæ deeply injected. The eyelids gummed together by purulent secretion. The left arm, leg, and side of the face are paralysed. There is a large bed sore over the sacrum. The urine and fæces are passed involuntarily. He is quite conscious, and between the fits able to speak freely and well. The tongue, when protruded, is turned to the left; the left side of the tongue is fearfully lacerated and covered with a dirty brown slough. The pupils are contracted; vision is dim, but not to any considerable extent. On ophthalmoscopic examination the discs are seen to be in the first stage of atrophy. The emotional centres are not under control; every now and again he bursts into a fit of crying. Epileptiform convulsions occur every three or four minutes; each fit lasts from 80 to 100 seconds. Both legs are first drawn upwards, and slightly away from the middle line, as if the

patient were going to place himself in the lithotomy position. The right leg is, if anything, affected before the left. After the drawing up of the legs the right arm is crossed over the chest, and the left arm extended parallel to the body. The head and eyeballs are at the same moment rotated to the left; tonic spasms then powerfully affect the muscles of the left side of the face, left arm, and left leg. The mouth is widely opened, and drawn to the left side. Clonic spasms next occur in the left side of the face, left arm, and left leg. The right orbicularis palpebrarum is affected, though less powerfully than the left. A few convulsive twitchings occasionally occur in the muscles of right arm and right leg. The convulsive spasms in the left side become very powerful; the patient foams at the mouth, and makes a cackling noise; the left side of the tongue is lacerated, and bleeds. As the fit goes off, the head and eyeballs are rotated back to the middle line, the pupils widely dilated. *During the convulsion the patient is quite conscious.* (There was no doubt whatever about this fact, for as soon as the fit passed off he could tell what we had been talking about, and all sorts of subjects were selected in order to test him.)

*The temperature is normal.*

*Treatment.*—Half a drachm of chloral hydrated to be repeated in two hours if the fits were not relieved, and half a drachm of the iodide of potassium five times daily were prescribed.

#### SUBSEQUENT PROGRESS OF THE CASE.

*On February 24th*, he was in *statu quo*; only one dose of chloral had been administered, and the nurse had neglected to give the iodide.

*On February 25th*, he was rather easier, taking a fit every half-hour.

*On February 26th*, he was much better; there had only been five fits in as many hours. He said "I have a craving for the medicine (iodide of potassium), and feel that every dose does me good, particularly that it relieves the cramps in the left leg." A jalap purge was ordered, as the bowels have not been relieved for several days.

*On March 3rd*, he was wonderfully improved, all congestion of the conjunctivæ gone. The fits have almost left him, and he can move the left leg a little.

*March 9th.*—No fit since last note. He looks bright and cheerful. Is rapidly regaining power in the left arm and leg. He can get out of bed himself. The ulcer in the tongue is almost healed; the tongue is clean, the appetite good.

*April 2nd.*—For the last eight days he has been walking about the ward. The bed sores are almost healed. The dose of iodide has been reduced to 90 grains per diem.

*April 20th.*—He was to-day made an out-patient, saying that he felt quite well. He was stout, free from paralysis and headache, and had had no fit since *March 3rd*.

He continued well until a fortnight ago, when he again presented himself, complaining of slight headache, restlessness, and inability to sleep at night. The iodide was again prescribed, and there is already some improvement.

#### REMARKS.

This case is a striking illustration of the great diagnostic value of the ophthalmoscope. The patient was admitted suffering from hemiplegia. The paralysis had followed an epileptic fit. The question to be determined was, *what was the cause of that fit?* for, as Dr. Hughlings Jackson has so ably pointed out, a convulsion is but a symptom, and may result from many different pathological conditions (apoplexy, embolism, uræmia, tumour, etc., etc.). Before the days of the ophthalmoscope, a correct diagnosis would probably have been made by the method of exclusion. It would, however, have been, at the best, uncertain. The condition of the discs at once cleared up all doubts, for neuro-retinitis, the condition which was present, is very seldom seen in cases of apoplexy, almost never in softening from embolism or thrombosis.

And here I would draw attention to the fact that vision was good—the patient could with ease read the card which I show you at a distance of thirty feet. I shall afterwards mention two other cases in which the same conditions—neuro-retinitis and perfect vision—were present. The matter is one of the greatest practical importance, for it shows the fallacy of trusting to the state of vision, and it illustrates the necessity of examining the fundus *as a method of routine* in all cases—that is, whether vision be perfect or not.

The case is also a striking illustration of the beneficial effects of treatment. It shows, firstly, the brilliant results which may often be obtained in syphilitic cases by large doses of the iodide; secondly, the powerful controlling action which hydrate of chloral has over epileptiform convulsions. This fact is now so well known amongst workers in nervous diseases that it perhaps hardly needs repetition.

The case also corroborates the opinion insisted upon in the last case, viz., that the prognosis in cases of cerebral syphilis is never utterly hopeless. To anyone unacquainted with this fact, the patient's condition, when re-admitted on September 23rd, 1876, must have appeared desperate, and yet I had no hesitation in giving a hopeful prognosis.

Other prognostic points of practical value are also illustrated by it.

1st. *In cases of cerebral tumour, the more frequent and more limited the convulsions, the more hopeful the prognosis.* For in cases of epileptiform convulsions, where the spasms are limited and unattended with loss of consciousness, the lesion is generally situated on the surface of the hemispheres, and is often very syphilitic. In other words, a superficial lesion, such as adhesion of the membranes and resulting limited softening, is a frequent cause of limited convulsions, which are not generally accompanied by loss of consciousness.

In cases of large tumours, on the contrary, it not unfrequently happens that there are very few convulsions. In such cases, too, the convulsions usually affect the whole body, are attended with loss of consciousness, and are not unfrequently fatal. I will afterwards give a case in point.

2nd. *In cases of epileptiform convulsions the frequency and severity of the spasms are not the factors which determine the mental deterioration, which is so often seen in cases of epilepsy.* The factor which does determine the mental deterioration is the *nature* of the centre or portion of grey matter which is first discharged.

Where the discharge begins in the highest centre—the seat of consciousness—the mental deterioration is always greatest. This fact is well known, and has been insisted upon by Dr. Hughlings Jackson. He quotes W. A. F. Browne and Jaccoud to the effect that in cases of *le petit mal* (epilepsy, in which there is no convulsive spasm but only loss of consciousness), the mental deterioration is often greater than in cases where there is severe spasm.\*

In other words, in cases of epilepsy or epileptiform convulsions, it is of the greatest practical importance to observe whether consciousness is lost, and if so, the period at which it is lost, whether at the beginning or the end of the fit.

I have already stated that in cases of limited convulsion there is often no loss of consciousness. In this particular case the convulsion, though limited chiefly to the left side, was very severe, and attended with foaming at the mouth, cackling, tongue biting, etc., and yet there was no loss of consciousness. This is a very interesting feature of the case—indeed, I am not acquainted with any other case in which the spasm was so wide-spread and so severe, and in which consciousness was still retained.

Other noteworthy points are :—

1st The absence of any affection of speech.

2nd The fact that the relapse was evidently due to the head injury. The influence of injuries in lighting up latent syphilis and in arousing intra-cranial tumours (syphilitic tumours, gliomata, &c.), is now universally recognised.

\* *West Riding Lunatic Reports*, vol. vi., p. 304.

3rd The fact that the spasm commenced in both legs, that both were drawn up in the same manner, and that the fit then became unilateral and severe.

4th. The extraordinary frequency and duration of the fits. (The convulsions occurred every four or five minutes, night and day, for fifteen days.)

CASE VII.—*Female, æt. 19. Head injured, followed by some hours of unconsciousness, two years before admission. Second fall a year after the first. Probable syphilis. Constant and severe headache, worse at night. Left-sided epileptiform convulsions. preceded by a well-marked aura in the tip of the middle finger of the left hand, the spasm commencing in the left hand. Speech plain and distinct during the fits. Post-epileptic aphasia. Relieved by iodide and bromide of potassium.*

H. W., æt. 19, a governess, was admitted under my care, on 30th March, 1876, complaining of headache, difficulty in speaking, and fits.

*Previous History.*—Patient states that she enjoyed good health until two years ago, when she “got a fright,” and became nervous and hysterical. In *September, 1874*, she fell on the ice,\* striking the back of her head. She was unconscious for many hours afterwards. In *June, 1875*, she fell off her horse, in consequence of a “giddy feeling in the head.” She was unconscious for some hours, and was laid up in bed for a week. In *July, 1875*, she had a second fall from her horse, and rolled down a bank two hundred feet high. She hurt her head, and was very much shaken. In *November, 1875*, she began to suffer from constant and severe headache. Soon afterwards she began to take fits. The left side only was convulsed. After the third convulsion her speech became affected. The headache and fits have continued almost daily until the present time. Her memory and power of application are so much weakened that she has had to relinquish for a time a good situation in America. (The family in which she acted as governess sent her home for two years.)

In *June, 1875*, she suffered from sore throat, and soon afterwards some brown spots appeared on her chest.

The *Family History* is good.

*Condition on Admission.*—She is stout and well developed, intelligent and well educated; she used to teach English, French, music, &c. Her memory is very bad; she can neither repeat nor write the alphabet. She complains of severe headache. The pain is generally worse at night, and is referred to the right side of the head and to the vertex.

The exterior of the skull presents nothing abnormal.

\* She was living in America.

*Sensibility* of all kinds seems natural.

*Hearing, taste, and smell* are natural. *Sight*, she says, is slightly impaired. (No defect in sight could be detected when her vision was tested.) The pupils are equal, and moderately contracted. The veins of the fundus are much dilated, the margins of the discs are well defined, and there is no œdema. *Speech* is slow and indistinct, and is attended with great effort and twitching of the facial muscles. She often stops in the middle of a sentence, hesitates, then makes a great effort to get out what she wants to say. At other times she stops short, apparently from not being able to remember the word she wants. She can repeat the alphabet after me, but cannot say it herself; nor can she write it correctly. In writing, the same mistakes occur as in speaking; she misses out some letters, and often hesitates before she writes others.

There is slight weakness in the grasping power of the left hand. The muscular system is otherwise normal.

*The reflex functions* are normal.

*Convulsions*.—She is seized four or five times a week with an epileptiform convulsion. The fit is preceded by a well-marked aura. She invariably feels a stinging sensation in the tip of the middle finger of the left hand. This sensation lasts for about three minutes, and then passes slowly to the meta-carpal joint of the finger. After reaching this point it runs with great rapidity up the ulnar aspect of the forearm to the elbow joint. She then becomes unconscious, and convulsed. The spasm commences in the left hand. (I never definitely ascertained the particular finger first affected, and, unfortunately, never myself saw the commencement of a fit.) The muscles of the left arm, left leg, and left side of the face are affected. A few convulsive twitchings in the right orbicularis palpebrarum are also seen. Sometimes during a fit, and while she is quite unconscious, she talks plainly and distinctly. There is none of the hesitation and difficulty which are present when she is awake. She talks on all sorts of subjects, but generally about ships. I myself saw her when the convulsion was fully developed. She was unconscious, the conjunctivæ insensible, tonic and clonic convulsions of the muscles of the left arm, leg, and left side of the face (the affection of the face was very slight) were present. Speech was free and easy. The fit which I witnessed lasted about three minutes. The convulsion generally lasts from ten to twenty minutes.

Some of the convulsions are much more severe than others, but the fit always commences in the same manner, and is always limited to the left side.

When she comes to herself she complains of numbness and weakness of the left arm.

She can arrest the fit by tying a ligature tightly round the

left middle finger at the commencement of the aura. When she "stops a fit" in this way, she always feels "queer and stupid in the head." This muddled sensation lasts until the occurrence of another fit, which soon comes on, and is invariably severe.

The *alimentary, circulatory, respiratory, urinary, and integumentary* systems are normal. The pulse 84; temp. 98·8° Fah. She menstruated the day of admission. She had not been unwell for two years previously.

The *treatment* consisted in the administration of half-drachm doses of iodide of potassium and the application of cold to the head and neck when the pain was severe.

*Progress of the Case.*—She improved considerably, and discharged herself on *May 2nd*. She continued to attend as an out-patient for several months, and improved slowly. The headache was almost entirely relieved; the fits were very much less frequent (one every two months or six weeks). The character of the fits, too, changed. The aura commenced in the right thigh (inner side), and the spasm first affected the left calf. The speech was very much better, though still far from natural.

*Remarks.*—This was a typical case of unilateral convulsions. From the fact that the spasm commenced in the fingers of the left hand, and affected chiefly the left upper extremity, we may conclude :—

1st. That there was a discharging lesion of the right hemisphere.

2nd. (Accepting Ferrier's localisation) That the portion of grey matter first discharged was situated in the ascending parietal convolution.

That the exciting cause of the discharge was the presence of a gross syphilitic lesion is, I think, probable from—1. The persistent, severe, and localised headache; 2. The history of sore throat and rash; 3. The beneficial effects of the iodide; 4. The general good condition of the patient; 5. The progress of the case; and 6. The absence of any other apparent cause of limited softening, such as embolism.

The lesion was probably a limited adhesion of the membranes with softening of the subjacent brain tissue. The absence of swelling of the discs showed that there was no amount of increase in the intra-cranial tension, consequently a large displacing lesion was excluded.

The chief point of interest in connection with the case was the speech affection. The association of epileptic aphasia with left-sided convulsions is, so far as I know, unusual. Another point of great interest is the fact that speech was free and natural during the fit and while the patient was unconscious. This is a remarkable fact, quite contrary to all experience. Dr. Hughlings Jackson says :—"Elaborate mental states do not occur

during an epileptic discharge—as a direct result of the discharge, we mean— . . . . Except at the onset of epileptic seizure when there are crude mental states, such as coloured vision, there occur no *physical states* of any kind *during*, but only *physical effects from*, the excessive local discharge, whatever the part of the ‘organ of mind’ may be in which the ‘discharging lesion’ is situated. . . . . No ideas of objects, of words, nor any kind of states of consciousness, occur during these *excessive* discharges excepting crude sensations at the outset.”— *West Riding Lunatic Asylum Medical Reports*, vol. vi., pages 276 and 280.

I am unable to give any explanation, and content myself with placing the fact on record.

The aura in this case was particularly well marked. The patient found that by arresting it she could prevent the occurrence of a fit. Instead, however, of being relieved by this procedure, she was always worse until the excessive pent up nervous force found free vent in a convulsion. This is quite in accord with Niemeyer’s experience. He says:—“On the whole, compression of a limb, from which the aura seems to proceed, is not advisable, even although we may avert the fit by so doing, since, in the first place, the patient feels worse after thus repressing an attack than if he had had one ; and, in the second, because his next seizure is apt to be of unusual violence.”\*

(*To be continued.*)

---

\* *Text Book of Practical Medicine*, vol. II., page 369.

# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

---

THE fifth monthly meeting was held in the Library of the Newcastle-on-Tyne Infirmary, on Thursday, February 14th, 1878, Mr. Morgan, president, in the chair.

The following gentlemen were elected members of the Society:—

J. C. Reid, M.D., Newbiggin.

Charles J. Sutherland, M.R.C.S., South Shields.

Bertram Janish, M.B., C.M., The Dispensary, Newcastle.

Charles A. Patrick, M.B., C.M., Do.

The following gentlemen were proposed for election:—

Hugh Walter Davies, M.R.C.S., Jarrow.

David Wilson, M.B., C.M., Washington.

---

## ELECTION OF HONORARY MEMBER.

Dr. BYROM BRAMWELL proposed "that Thomas Annandale, Esq., F.R.S., Professor of Clinical Surgery in the University of Edinburgh, &c., be elected an Honorary Member of the Society," and said: It is the custom in this Society when any leading member leaves the district to elect that member an honorary member of the Society. Professor Annandale has been for many years an ordinary member of our Society. And now that he has made such a very distinguished position for himself in the profession, it would, I think, be paying him a well-merited compliment to make him an honorary member. I have, therefore, very great pleasure in proposing the motion which stands on the notice paper.

Mr. H. E. ARMSTRONG seconded the proposal with great pleasure. He knew that there was a precedent, for Dr. Robinson and Dr. Greenhow having been elected honorary members.

Dr. PHILIPSON supported the resolution, and in doing so, expressed his conviction that if the Society elected Professor Annandale an honorary member, the Society would not only be honouring Professor Annandale, but that in consequence of the very act, honour would be reflected on the Society, on the Institution in which they were assembled, and upon Newcastle-on-Tyne,

the town of Professor Annandale's birth. Professor Annandale had received his early professional education in the Newcastle Infirmary, and Professor Annandale, in his introductory lecture, November 1st, 1877, made a most pleasing allusion to that circumstance. It was further that he had in remembrance that Professor Annandale's career in the Newcastle Infirmary was passed under the guiding hand of his own father, that estimable and able surgeon, the late Mr. Thomas Annandale, whose memory was still dear and warmly cherished. As he himself (Dr. Philipson) had been a fellow-dresser with Professor Annandale, under the late Mr. Annandale, it was with sincere pleasure that he supported the resolution, which had been proposed and seconded in such a pleasing manner.

The PRESIDENT also heartily supported the resolution, which was carried by acclamation.

### PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG presented the following :—

*Return of Admissions to, and Deaths at, the Newcastle Fever Hospital during the month of January, 1878.*

						Admitted.			Died.	
Typhus ...	...	...	...	...	...	5	...	...	4	
Enteric Fever ...	...	...	...	...	...	2	...	...	0	
Total					...	7	...	...	4	

—Two of the fatal cases were admitted in December, and two in January. All the cases were of the adynamic type; most or all of the patients had suffered greatly from privation up to the time of their admission to hospital. The three most severe of the fatal cases showed a sudden and marked fall of temperature on the tenth day; but although livid and almost pulseless, retained intelligence at an advanced period of the disease. In this particular of comparative freedom from cerebral complication the cases call to mind those of Relapsing Fever, of which Mr. Armstrong reported a short outbreak in 1872, and which is probably the only outbreak of that disease in Newcastle on record. In Relapsing Fever the mental faculties usually remain clear notwithstanding a rapid pulse, an exceedingly high temperature, and other very urgent symptoms. Death occurred respectively on the 10th, 11th, 12th, and 14th day, counting from the first feeling of ailment.

The recent appearance of Typhus in the borough is due to importation—a man “on tramp,” whilst suffering from commencing fever, having gone to lodge in a private house. The patient recovered, and the case was not reported to the Sanitary Authority. All the others have been traced to contagion from this. All,

except the first-named, were promptly removed to hospital. The rooms were thoroughly cleaned and stoved, the passages lime-washed, and the bedding, &c., either destroyed or purified in the excellent Ransom's Disinfecting Apparatus in use at the Fever Hospital. It is intended to give a report of the outbreak after its termination.

Mr. SPEAR stated that the epidemic of Scarlet Fever at South Shields still continued.

Dr. BYROM BRAMWELL then read the following report of the sub-committee appointed to inquire into the propagation of infectious diseases through public schools:—

Your committee have to report that they held two meetings, and carefully considered the question of the propagation of infectious diseases through the agency of public day schools.

Your committee are of opinion :—

1st. That infectious diseases are unnecessarily prevalent and fatal.

2nd. That public elementary day schools are one of the chief means by which such infectious diseases are spread.

3rd. That the following appear to be the chief causes of this transmission:

(a) Ignorance on the part of parents, scholars, and school officials.

(b) The fact that under the Education Act no allowance is made for absence from sickness, and that the number of the attendances of children has a direct bearing on the amount of the Government grant, the result being that pressure is brought to bear upon teachers and parents to have children at school, irrespective of their sanitary fitness or unfitness.

(c) That at the present time school authorities have no competent means of ascertaining the nature of the diseases on account of which children are kept from school, or the fitness of children to be re-admitted on recovery from infectious disease, and that there is no satisfactory sanitary supervision over the elementary schools.

With a view to preventing the spread of infectious diseases through public elementary schools, your committee would recommend :—

1st. That whenever a child is kept from school on the plea of illness, the case shall be at once investigated, in order to ascertain the nature of the disease.

2nd. That school authorities shall require a medical certificate as to the nature of the disease from which the child is suffering.

3rd. That children certified to be suffering from infectious diseases, or children living in rooms occupied by others so suffering, shall not be allowed to return to school without a medical certificate certifying that they may safely do so.

4th. That in calculating the number of attendances, allowance shall be made for absence under a medical certificate.

5th. That a medical sanitary officer, to be called the School Board Medical Officer, shall be attached to every school authority.

6th. That such officer shall be the Medical Officer of Health for the Local Sanitary Authority.

7th. That such medical officer shall be paid such salary as the School Authority shall determine.

Your committee would recommend that the School Authorities throughout the kingdom be cordially invited to unite with the Society in memorialising the Local Government Board to give effect to the foregoing resolutions.

(Signed)

G. B. MORGAN (President), Chairman.

On the motion of Dr. ARMSTRONG, it was resolved that the report be received, and considered at the next monthly meeting.

---

### PATHOLOGICAL TRAY.

Dr. J. W. BRAMWELL showed an extremely interesting specimen of cerebral abscess, and said: This brain, sir, was taken from a young lady, æt. 15 years, who died somewhat suddenly about the middle of December last. Nine years previous to her death she had a bad attack of typhoid fever, and from that time she never had been very strong. From the date of this fever she had had a constant discharge of matter from her right ear. She was subject to faintings, headaches, and great giddiness on stooping. If she dropped anything, she invariably went slowly down on her knees before she was able to pick it up again. Her sight was good. She never had a convulsion, nor did she at any time complain of numbness or loss of power in either arm or leg. She was intelligent and very clever at her lessons, having during the last year of her life taken the first prize in a class of which she was one of the youngest pupils. She never was so ill as to require medical attendance until ten days before her death, when the discharge suddenly ceased. She became feverish, complained of great pain in her head, and vomited freely. Poultices were applied over her ear, and next day the discharge again appeared, giving her instant relief. She remained well for four or five days. She was able to be up, and could run up and down stairs without feeling any bad effects. Two days previous to her death she again complained of her head, and was again sick, but the discharge from the ear did not stop. She remained in this state, without any other symptom, for two days, when on getting out of bed during the evening she fell back dead. At the *post mortem* examination all the organs of her body were found to be healthy until we came to the brain. On removing the brain, an abscess at the base was at once seen. It occupies the greater part of the middle lobe of the right cerebral hemisphere. It rested on the petrous portion of the temporal bone, being separated from the bone by a thin layer of brain substance. There was a direct communication between the abscess cavity and internal ear through the foramen known as the Hiatus Falopii, so that the pus had free exit. The abscess was encysted, the walls of the cyst being tough and fibrous, and the cyst lined with a pyogenic membrane. The pus was green, foetid, and alkaline. The case is, I think, an extremely interesting one. There is strong evidence that this girl had this abscess in her brain for a period of nine years—that is, from the time she had fever until her death. She had a constant discharge from the ear during

that period ; she was subject to headaches and great giddiness on stooping. Then, there were no symptoms before her death of any sudden formation of matter ; she had no shivering, no convulsion, and no paralysis. Again, the walls of the cyst are fibrous and tough, and it is lined with a pyogenic membrane. The pus, also, was in character that of a chronic abscess. The case is also interesting as a proof that a considerable portion of the cerebral lobe may be destroyed without the intelligence being affected in the least.

Dr. HEATH showed a portion of the tongue removed from the patient exhibited to the Society at the January meeting.

The PRESIDENT said he could endorse what Dr. Heath had said with regard to some of the disadvantages of the galvanic cautery. In three cases in which he removed the tongue by the galvanic wire, bleeding occurred—in one on the second and in one on the sixth day. In the latter case it was very severe, and had it not been for the assistance of a medical friend, who was present when it occurred, it might have proved fatal. There was not a drop of blood lost at the time of the operation.

Dr. DRUMMOND asked why such a very serious operation had been resorted to.

Dr. E. C. ANDERSON asked as to the exact nature of the disease.

Dr. SKRIMSHIRE showed—1. A good specimen of hydatiform mole. 2. A specimen of cancer of the pylorus, in which there had been no vomiting during life, owing probably to the fact that the stricture was not very tight.

Dr. BYROM BRAMWELL exhibited—1. A beautiful specimen of aneurism of the mitral valve and heart, and said : The patient, a male. æt. 47, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on 2nd November, 1876, suffering from chronic Bright's disease (the small red granular form of kidney) and aortic regurgitation. He was much relieved by treatment, and on November 30th was made an out-patient. He continued to attend at irregular intervals until October, 1877, when he became worse ; general dropsy set in, and a loud mitral systolic murmur was now audible. Even before the dropsy set in the patient was blue about the lips, short of breath on exertion, and looked much more like a mitral than an aortic case. On 2nd November, 1877, he was again admitted to the Infirmary. He died on January 28th. The following were the *post mortem* appearances :—The kidneys were good examples of the small red variety. The heart was hypertrophied, the aortic valves were slightly incompetent, the base of the aorta was atheromatous. A small ulceration was seen on the auricular aspect of the posterior segment of the mitral valve ; this

ulceration communicated with a cavity fully the size of a large plumb (the aneurism). The cavity was situated between the endocardium and the subjacent muscular tissue. It was partly filled with laminated fibrine. There were two other small communications between the cavity of the aneurism and the cavities of the heart. The specimen is of great interest from its rarity, and the size of the aneurism.

2. A specimen of innominate aneurism, and said: The patient, a sailor, æt. 37, was admitted, under my care, on February 22nd, 1877, suffering from orthopnea, cough, and pain in the chest and at the root of the neck, loss of voice, and difficulty in swallowing. On examining him, I found that these symptoms depended upon the presence of an aneurism situated behind the upper part of the sternum. The tumour had made its way up towards the root of the neck, and had dislocated both clavicles. It extended more towards the left than the right side. The prominence at the root of the left side of the neck was also greater than that on the right side. The radial pulses in both wrists seemed equal. The heart was normal. The patient denied having had syphilis.

He died some seven days after admission, and this large aneurism of the innominate artery was found *post mortem*. When recent it was fully the size of my two fists, and was almost entirely filled with layers of laminated fibrine. The case is chiefly interesting from the position of the tumour, the symptoms which were produced, and the consequent difficulty in diagnosis. Aneurisms of the innominate almost invariably extend into the right side of the neck, frequently dislocating the right clavicle. This aneurism had extended downwards and to the left as well as upwards. It lay immediately in front of the trachæa and œsophagus; hence the difficulty in swallowing and in breathing, symptoms which are said to be rare in cases of innominate aneurism. Indeed, from the presence of these symptoms, the equality of the radial pulses, and above all the position of the pulsating tumour, I was of opinion that it was an aneurism of the transverse portion of the aortic arch and not of the innominate.

3. A cyst adherent to the aortic arch at the junction of the ascending and transverse portions, and said: This specimen is chiefly interesting from its rarity, and from the difficulty it occasioned in diagnosis. The patient, a drayman, æt. 50, was first admitted, under my care, on 17th February, 1876, suffering from renal dropsy. He was discharged on April 6th, and continued well until October 5th, when he again came under my care for the same complaint. On both occasions pulsation could be seen and felt between the second and third left ribs for an inch and a half outside the sternum. There was, too, dulness on percussion over that spot and over the manubrium sterni. On

auscultation a loud systolic murmur was audible, and the second sound was perhaps somewhat more distinct than normal. The right pupil was smaller than the left, but there were no pressure signs, and there never had been any pain. The heart was normal. The opinion I formed of the case was that there was an aneurism, or that the arch of the aorta was largely dilated. The patient was discharged relieved of his dropsy, but was again admitted on November 1st, 1877. He was now in an extreme state of emaciation, and presented a remarkably cachectic appearance. He complained of some difficulty in swallowing, and of tenderness on pressure in the pit of the epigastrium. No tumour could be detected. He never vomited. The physical signs in the thorax were the same, except that the apex beat was somewhat higher than natural, corresponding to the left nipple. I now rejected the idea of aneurism in favour of uniform dilatation of the aorta. The patient died on January 11th, somewhat suddenly, death being preceded by a severe epileptiform convulsion. At the *post mortem* we found this cyst adherent to the aortic arch at the junction of the ascending and transverse portions. It is, you will see, about the size of an egg. It contained a clear fluid of low specific gravity, which was almost entirely coagulated by heat. No distinctive deposit was found in the fluid on microscopical examination.

---

### EXHIBITION OF PATIENTS.

Dr. HEATH showed a bad case of compound comminuted fracture of the thigh, treated by extension with elastic appliances.

Dr. ARMSTRONG showed a case of ununited fracture of the humerus cured by operation.

Dr. J. W. BRAMWELL said he had been much interested in Dr. Armstrong's remarks, for the patient had been under his care previously to his admission to the Infirmary. The fracture was a simple one; it had been put up in the ordinary method, but union did not take place. This was not owing to any movement or interference with the splints on the part of the patient.

The PRESIDENT asked if there was any specific cause for the non-union.

Dr. BRYOM BRAMWELL thought the President had hit the right nail on the head. Several months before the date of the fracture the patient had been under his care, suffering from rheumatic pains, worse at night. He was relieved by iodide of potassium.

Mr. BARRON showed a case of excision of both knee joints. A full report of this unique case will be read at the next meeting of the Society.

Dr. BYROM BRAMWELL showed—1. A case of psoriasis, treated by chrysophanic acid ointment. The patient, a girl, æt. 11, had suffered from the disease for eight years, and had been several times under treatment. After a short course of the chrysophanic acid she got quite well. At the time of her admission she had a very bad scabbed head (impetigo); under the application of boracic acid lotion and boracic acid ointment this was cured in ten days.

2. An extrathoracic tumour, which at first sight looked like an aneurism. The patient, a man, æt. 60, was admitted complaining of pain in the right shoulder, shooting down the arm, shortness of breath, and beating in the chest. A conical tumour projected from the chest wall, between the first and third right costal cartilages. The right radial pulse was almost imperceptible. There was no pulsation in the tumour, which was lobulated. The difference in the size of the radial pulses seemed to be due to abnormal distribution of the right, for the brachials were almost equal in volume and strength. The tumour was of three months' duration.

Dr. DRUMMOND asked if any erythema had been observed after the application of the chrysophanic acid ointment, and said the usual experience at the Children's Hospital was to cure cases of impetigo of the head in ten days.

Dr. BRAMWELL, in reply, said there had been well marked erythema. He was glad to hear of Dr. Drummond's success in the treatment of impetigo of the head. He rarely now saw such cases, but when in general practice he had found them often very obstinate and difficult to deal with.

---

## CASE OF PUERPERAL CONVULSIONS TREATED BY VENESECTION.

By R. W. FOSS, M.D.

THE occurrence of such cases as the one I am about to detail to you, together with the dreadful character of the disease, as well as the fact of one frequently being unable to assist the patient out of her calamity, lend a considerable justification to the use of a remedy which, on account of its abuse in former times, has almost disappeared from the domain of therapeutics.

At any rate, I submit that it will remind practitioners that, as a last resource, there is a remedy which may be of advantage.

Having recently seen similar cases which resisted all treatment, I feel that I have some considerable grounds in attributing the patient's recovery to be entirely due to her having been bled.

A young unmarried woman (A. B.), æt. 19 years, had been an inmate of the Stockton Union Workhouse, in expectation of her confinement. She usually had good health. One morning, while going about the wards assisting the servants, she fell down in a fit of convulsions, from which she soon recovered, and seemed to be quite well again. In the evening, about seven o'clock, she commenced to have fits incessantly. In the absence of Mr. A. E. H. Trotter, I saw her about eleven o'clock, when she was having periodical attacks of clonic convulsions, with frothing at the mouth, and had a repetition of the convulsions almost every five minutes. The skin was intensely hot and burning.

The pulse was 120, full and bounding. On making a vaginal examination, there was the usual flaccidity indicative of commencing labour. The aperture of the os was about the size of a sixpence, and the head could just be felt through it as the presenting part.

She was ordered mustard to the nape of the neck, and bromide of potassium and brandy internally. About 3 a.m. next day, Mr. Trotter and I saw her again, when she was in much the same condition, with, however, turgidity of the veins of the neck and face. We decided then to bleed her, to the extent of 16 ounces, from the arm, which was done, with the result that, although she did not regain consciousness for 24 hours, still she did not have another fit, and, at ten o'clock next morning, was delivered of a male child, still-born. The labour was unassisted.

The pulse 72, and the skin was cool and moist.

She made a good recovery, slightly interrupted by severe pains in the course of the great sciatic veins for a few days.

This case is interesting at the present time, owing to the diversity of opinion which exists as to whether we ought to bleed in these cases. On the one hand, we find Drs. Churchill, Johnson, and

Sinclair, Ramsbotham, Tyler Smith, and others, all strongly recommending bleeding; in fact, one of them says—"Bleeding is our great reliance; the lancet is our sheet anchor; and blood may be taken to a large extent." On the other hand, we have the late Sir J. Simpson, Dr. Brann of Vienna, Dr. Barnes, the late Dr. Tanner, &c., all equally averse to venesection. Dr. Tanner, in his last work on "Diseases of Pregnancy," says: "I have no hesitation in expressing a decided belief that blood-letting, as a general rule, without exerting any valuable effect on the symptoms, is calculated to produce irreparable mischief." So that the matter rests on very good support—less the great reaction in therapeutics against what was once the first part of the treatment of all diseases, and so indiscriminately employed and practised by persons untrained in medical science, that it can hardly be wondered at that it should not have sometimes caused harm instead of the good for which it was intended.

In spite of the strong adverse feeling, and notwithstanding that many important drugs have been introduced into medical practice within the last few years, I still feel that, performed under the eye of the educated and qualified medical practitioner, much good may yet be obtained from this almost obsolete *modus medendi*—in appropriate cases, of which this is one.

Dr. E. C. ANDERSON related the particulars of a case in which the same mode of treatment (venesection) had been successful.

Mr. HAWTHORN had attended 2,500 cases of midwifery; of six cases which recovered from puerperal convulsions, only one was bled. In the other cases the treatment varied. One disadvantage of venesection was that it often, as in the case related by Dr. Foss, led to the death of the child.

Mr. MORDEY DOUGLASS related particulars of two cases which had occurred in his practice.

Dr. BYROM BRAMWELL asked whether there was any albuminuria in the case reported by Dr. Foss; that was acknowledged to be a common cause of puerperal convulsions. He had seen very favourable results from bleeding in cases of uræmic convulsions after scarlet fever; possibly the explanation of the varied success of venesection in puerperal convulsions was to be explained by the fact that, in those cases where the treatment succeeded, uræmic was the cause of the fits.

Dr. E. C. ANDERSON had attended 3,000 cases of labour, and had not lost a single patient from any cause whatever. He had met with 15 cases of puerperal convulsions, all had recovered. He thought these cases did as well without as with bleeding.

Dr. DENHAM was old enough to remember when bleeding was always the orthodox treatment. The patients used to recover just as they generally do now without it. He thought the mode of treatment was of little consequence.

Dr. FOSS said the urine had not been examined. He thought one great point was to deliver as speedily as possible. He had seen a considerable number of cases; several of them had, unfortunately, died in spite of treatment. He thought the affection was a much more dangerous one than some gentlemen seemed to think. The treatment had succeeded so well in the case he had reported that he would certainly try it in any future case.

---

## NOTES OF TWO CASES OF SYPHILITIC PARAPLEGIA.

By G. H. PHILIPSON, M.A., M.D., CANTAB.; F.R.C.P., LOND.;

PHYSICIAN TO THE NEWCASTLE-UPON-TYNE INFIRMARY, ETC.

ACQUIRED or Constitutional Syphilis has not a regularly continuous evolution. Above all a chronic disease, it is sometimes, accompanied in its course by acute symptoms. Usually intermittent, it proceeds by stages which are sometimes very long until some exciting cause intervenes to give a fresh impulse to the evil. It presents this singular phenomenon, one of the most impenetrable mysteries of human pathology, of accomplishing its evolution by successive periods, in the intervals of which the health continues to be apparently perfect.

According to Ricord, the syphilitic drama is divisible naturally into three acts or periods: first, primary lesion, the immediate result of contagion; second, secondary lesions, or constitutional poisoning, resulting from that infection; and third, tertiary lesions, which rarely show themselves before the end of the sixth month. To these periods, an eminent dermatologist, Bazin, has added a fourth, which includes visceral lesions, and which he designates the quarternary period. Lancereaux, taking into account the anatomical modifications, does not overlook the chronological order of the phenomena, which are the symptomatic expression of them, and accordingly is in favour of a fourfold classification: first, the period of incubation; second, the period of local eruption, or of the primary lesion; third, the period of general eruption, otherwise called that of secondary affections; and fourth, the period of gummy products, otherwise called that of tertiary and quarternary affections. Well marked differences separate each of these periods: in the first, it is the complete absence of local manifestations; in the second, the presence of a single, unique modification of the tissues at the point of deposition of the contagious matter. Numerous but superficial lesions characterise the third period, while the fourth is distinguished by changes more deep seated. Such lesions may be of the sub-cutaneous, cellular and fibrous tissues, tendons, muscles, bones and viscera, including the nervous textures.

Brain paralysis, connected with syphilis, frequently occurs, and paralysis, associated with syphilitic disease of the spinal cord and its membranes, is not uncommon. Of the latter condition, the particulars of two cases will be recounted.

CASE I.—A. B., aged 35, single, goods guard in the employment of the North Eastern Railway Company, residing at Byker, was admitted into the Newcastle-upon-Tyne Infirmary, under my care, April 13th, 1877.

He stated that for six months he had not been strong, and that upon two occasions he had been compelled to be off his employment, from pain in his back, thighs, and numbness of the legs. He had noticed, also, that as he walked, he did not feel his feet, when he placed them upon the ground. Gradually he had become unsteady upon his legs, and three days before his admission, he found that he was unable to move his right leg.

His condition was the following:—He was a muscular and well formed man, of the sanguineous temperament. He was wholly without power of motion in the lower extremities. Sensation was unimpaired. The bladder was distended, and there had been incontinence of urine, and inability to retain the fæces. Upon percussing the lower dorsal and lumbar vertebræ, a little pain was experienced. Reflex action was exaggerated. The limbs, of themselves, jumped, especially during sleep. The pulse was 84, and the temperature  $98.6^{\circ}$  F. The heart was healthy. The urine when drawn off was turbid and ammoniacal.

The case was regarded as one of hyperæmia of the spinal medulla and its membranes. He was ordered the liquid extract of ergot, in thirty-minim doses, in water, every four hours. The remedial power of ergot, over hyperæmia, being great, more especially in resuscitating the muscular contractility of the rectum and bladder. He was placed upon water cushions, and the catheter was to be passed night and morning. His diet was milk and beef tea.

May 12th. Very little change has occurred in the motor power. He is still unable to move his legs, and the catheter is still required. He has no power in retaining the fæces. He has complained greatly of pains in the thighs and legs, especially in the evening and night.

The supposition arising that the condition might have a specific origin, he was carefully interrogated, and he admitted to having suffered from syphilis, five years ago. Upon examination, the inguinal glands were found to be enlarged.

Regarding the specific character of the case, as established, the ergot of rye was discontinued, and iodide of sodium, in ten-grain doses, in water, three times each day, was substituted.

May 26th. The power of movement of the lower extremities has decidedly increased. He is able to raise the legs from the bed. The pains complained of have greatly diminished. The iodide was increased to twenty grains.

The improvement gradually increased, and on June 16th he was able to walk round his bed, on June 23rd to walk across the ward, on June 30th to walk the full length of the ward, and on July 7th he walked to the garden, for the first time.

He left the Hospital on July 21st, 1877.

CASE II.—C. D., aged 30, single, a fireman, residing at Coundon, in the county of Durham, was admitted into the Newcastle-upon-Tyne Infirmary, under my care, May 10th, 1877.

He stated that he had been unable to follow his employment for five weeks, in consequence of difficulty in holding his water, of weakness in his back, and loss of power in his legs. For some weeks, previous to his relinquishing his employment, he had not felt strong; he had suffered from pain in his muscles, he had experienced difficulty in moving his right leg, subsequently the left, and also stiffness of his knee and ankle joints.

At the time of presenting himself for admission, he was carried into the reception-room by two friends. Upon examination, it was found that his power of motion of the lower extremities was diminished. When desired to stand, he asked to be supported; he then placed one foot before the other, as in the act of progression, but with uncertainty. The difficulty was not increased, when his eyes were closed. His grasp was equal, and his intellect was clear. The voice was hoarse, and the larynx and the epiglottis were red and swollen, but there was no ulceration. The heart's sounds were normal.

The resemblance of this case to the preceding one was so great, that its specific nature was at once surmised. Upon being questioned, the man admitted to having suffered from syphilis, seven years ago. The lymphatic glands in the neck were found to be hard, indurated, and swollen.

The case was regarded as one of hyperæmia of the spinal medulla and its membranes, syphilitic in causation.

He was ordered ten grains of the iodide of sodium, in water, three times each day, and the ordinary common diet.

May 24th. The power of moving the legs, and of walking, has increased, while the pain in the legs has greatly diminished. The iodide was increased to twenty grains.

The improvement gradually increased, and on June 23rd, he was able to walk by himself, with the aid of one stick; on June 27th, to walk round the ward; and on June 30th, to go into the garden.

He left the Hospital on July 7th, 1877.

#### REMARKS.

The symptoms, in both cases, speaking in general terms, may be said to have been those of hyperæmia of the spinal medulla and its membranes. When, however, they are more carefully estimated, there would seem to have been a changeableness in their character, that the motary impairment was inconstant, and accompanied with an unusual amount of muscular pain, which pain was exacerbated in the evening and night. Furthermore,

both individuals were young, in the fourth decade of life, without cardiac lesion, and both had suffered from syphilis, some years previously. Hence, it may be inferred that degeneration of the spinal cord, from non-inflammatory softening, or from embolic softening, might very properly be excluded, but that the supposition that the spinal disturbance was due to the syphilitic influence, might be entertained.

The result of the treatment is in support of this view. For, in the first case, although the ergot of rye had been steadily continued for four weeks, without any appreciable beneficial effect, yet, when it was discontinued, and the iodide of sodium substituted, improvement commenced, became continuous, and without other aid, restoration was accomplished; and that in the second case, coincident with the administration of the iodide of sodium, an improvement manifested itself, which was progressive, and ended in the re-establishment of motory power. From the beneficial effect of the treatment, therefore, the correctness of the inference, that the spinal disturbance was syphilitic in its causation, is further established.

Again, the restoration, in both cases, from the paralytic condition, which it will be allowed was severe, cannot be supposed to have been dependent upon any considerable anatomical change, but rather upon some disturbance in the circulation, possibly upon thickening of the arterial coats, with a diminution in the calibre of the arterial canals. Upon the correctness of this supposition, the polymorphous, wide-spread and changeable character of the symptoms may be explained. It will, then, be readily understood how severe symptoms may be suddenly manifested, and how, when the difficulties in the circulation have disappeared, severe attacks are rapid in their improvement. For this reason, the appropriateness of the administration of remedies which are supposed to have an absorbent influence.

From this consideration, it would appear that no single nervous symptom can be regarded as pathognomonic of syphilitic paraplegia, but preferably, that motor paralysis of the lower extremities, ascending, without sensory paralysis, accompanied with muscular nocturnal neuralgia, is the combination.

The paraplegia, at first slight, would seem to remain long at a given point, or to advance slowly, then more suddenly to become worse, amend again a little, perhaps spontaneously, or at least without specific treatment, and again to increase, and to pursue its course to absolute loss of motion, reflex action persisting or being exaggerated.

Dr. HEATH had lately met with some interesting cases of syphilitic brain disease in which he had used mercurial inunction with success,

The PRESIDENT thought the Continental plan of rubbing was much more effectual when combined with hot bathing, and related a case in which it had proved eminently successful so long as the patient was taking the natural hot baths. On his return to this cold climate it utterly failed, though practised in the same way. He asked why Dr. Philipson used the iodide of sodium in preference to the iodide of potassium?

Dr. PHILIPSON, in reply, said he used the iodide of sodium in preference to the iodide of potassium because the sodium salt contained twice the quantity of iodine. This plan had been advocated in the *Lancet* by Mr. Berkely Hill. He related a case in which the iodide of sodium had succeeded when the iodide of potassium had failed.

---

# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

---

THE sixth monthly meeting was held in the Library of the Newcastle-on-Tyne Infirmary, on Thursday, March 14th, 1878, Mr. Morgan, president, in the chair.

The following gentlemen were elected members of the Society:—

Hugh Walter Davies, M.R.C.S., Jarrow.  
David Wilson, M.B., C.M., Washington.

The following gentleman was proposed for election:—

Samuel Warren, M.B. (Dub.), Castle Eden.

The PRESIDENT read the following letter, which he had received from Professor Annandale.

34, Charlotte Square, Edinburgh,  
February 22, 1878.

MY DEAR SIR,—Please convey to the members of the Northumberland and Durham Medical Society my sincere thanks for the honour they have done me in electing me an honorary member of the Society.

I appreciate this honour the more highly, because it has come to me as an expression of good feeling and kind attention from my professional friends, from whom, and with many of whom, I obtained my first lesson in surgery in the Newcastle-upon-Tyne Infirmary.—I remain, very truly yours,  
THOMAS ANNANDALE.

The President Northumberland and Durham Medical Society.

---

## PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG presented the following:—

*Return of Admissions to, and Deaths at, the Newcastle Fever Hospital during the month of February, 1878.*

						Admitted.			Died.
Typhus	...	...	...	...	...	5	...	...	0
Scarlet Fever	...	...	...	...	...	3	...	...	0
Total						8	...	...	0

The typhus patients were all found to have had some communication with previously infected families, the cases from which have already been reported. They suffered from a sharp, but uncomplicated, form of the disease.

The scarlet fever cases were sent to hospital from a business establishment in the town. They were of the simple form.

REPORT OF THE SUB-COMMITTEE APPOINTED TO INQUIRE INTO  
THE PROPAGATION OF INFECTIOUS DISEASES THROUGH  
PUBLIC SCHOOLS.

After a lengthy discussion, in which the President, Drs. Broadbent, Eastwood, Scotland, Gibson, Yeld, Reid, Huntley, Macaulay, Mordey Douglas, H. E. Armstrong, Craig, Denham, and Sutherland took part, it was resolved, on the motion of the PRESIDENT, seconded by Mr. S. W. BROADBENT, that the report be adopted, and the sub-committee be requested to invite the other Medical Societies throughout the country to unite with the Society in taking further action in the matter.

Certain verbal alterations proposed by Mr. H. E. ARMSTRONG were referred to the sub-committee.

---

PATHOLOGICAL TRAY.

Dr. PAGE showed a rare form of polypus of the rectum, which he had removed by ligature.

Dr. GIBSON showed a specimen of aortic aneurism which was taken from a sailor, 40 years of age. The patient suffered from trifling ailments at the time of his admission into the Infirmary:—loss of appetite, loss of sleep, and some loss of strength. He complained of occasional headache, pain in the left side of the chest, and in the neck, beneath the upper attachment of the sterno-mastoid muscle. There was no cough, no dyspnœa, no abnormal condition of the cardiac sounds. In a couple of weeks he appeared to be getting well; but soon afterwards he complained of pain, referred to chest behind the upper portion of the sternum, of dyspnœa, and of sickness. Now the pulse of one radial artery was observed to differ in size and force from that of the other; the left radial became eventually so feeble as to be almost unfelt, while the right maintained its volume and power. The sleeplessness again became a very marked and troublesome symptom. In two or three days more the percussion note, in the upper part of the left side of the chest, was distinctly duller than that obtained by striking the right side of it. The disposition to vomit became marked, and the sleep obtained was brief and unrefreshing. The patient now steadily lost flesh and strength. The dyspnœa was greater, and a short hacking cough manifested itself. The cough and dyspnœa increased from day to day. The dulness on percussion became more marked and more defined. The trachea became more and more displaced to the right side, and dysphagia proclaimed itself keenly. A little blood was expectorated. The patient died suddenly, having ejected from his stomach (?), immediately before death, a small quantity of blood. On *post mortem*

examination the left pleural cavity was found to contain a considerable quantity of serous fluid, while tough old adhesions united both lungs to the chest wall, in places. Springing from the arch of the aorta, at the junction of the transverse with its descending portion, a large aneurism was found, which was filled with dense laminæ of fibrine. The aneurism had made its way through the trachea by a small opening just above the bifurcation. It had also pressed upon and ruptured the œsophagus, the opening here being of the size of a florin, with black and gangrenous edges. The heart presented no remarkable appearance.

Dr. BRADLEY showed a rare abnormality of the placenta, which he met with in a primipara. The vessels of the cord divided and subdivided upon the membranes about three inches from their attachment into the side of the placenta. Such an occurrence was very rare. Dr. Bradley had never met with a similar specimen before; but finds that two similar placentæ were exhibited at the March meeting of the Obstetrical Society, 1877, by Dr. Maberley. They were presented to the St. Bartholomew's Hospital Museum. Also one by Dr. Lawrence in May, 1876. Dr. West read a paper at the December meeting of the same Society, 1865, on this anomaly of the placenta, and pointed out the danger and embarrassment which might arise from such an attachment of the cords. The specimen was of considerable practical importance, demonstrating the danger which might arise from traction on the cord—always an objectionable practice—thereby causing its rupture, and it might be hæmorrhage and retention of placenta.

---

### EXHIBITION OF PATIENTS.

Dr. PAGE showed a case of club foot treated by Watson's splint, and said:—I do not know of any cases in minor surgery which are apt to annoy and disappoint the surgeon more than cases of club foot. No other proof is required of the diversity of opinion existing as to the best method of treating club-foot than that afforded by the number and variety of boots, more or less complicated and costly, in use for the purpose. Here is what was a very bad case of the ordinary variety of club-foot treated by means of a very simple and inexpensive splint, invented, I believe, by Dr. P. H. Watson. It consists of two pieces of tin, a leg and a foot piece, covered with wash leather, and fastened together by a stout piece of copper wire, which is welded to the tin behind from top to bottom, so that the splint can be bent in any direction, and applied to the outside, the inside, the back, or the front of the limb alternately. The child's age is ten weeks. Both anterior tibial tendons were divided four weeks ago, and the splints applied at

once. I have changed the splints at first twice, and latterly only once a-week, never applying them in succession on the same aspect. The result so far is good, and the plan is so easy and simple that I think it worth while showing the case while under treatment to the Society, in order that the splints may be more extensively known and used than I believe they are at present. I think the left tendo achilles may require to be divided, but the right foot will become quite straight without further interference.

Dr. HEATH advocated the use of an instrument having considerable potential energy, and stated that in his opinion division of the tendons was very seldom necessary.

Dr. GIBSON showed—1. A patient, a boy of six years of age, who had suffered from empyema, and who had been operated upon with complete success. The history of the case was that of pleurisy. The pleural abscess which supervened pointed and discharged near the nipple of the left side. It continued to discharge from the time of its rupture up to the time of the paracentesis, the boy's health and strength gradually deteriorating. A free opening was made into the chest under the carbolic spray, and an abundant discharge of pus through the artificial opening followed. A drainage tube was passed into the pleural cavity, through the artificial opening, and the wound was covered by antiseptic dressing. The tube was retained until the contraction of the cavity fairly excluded it. The operation was followed by immediate relief, and this by gradual, steady, and complete restoration to health.

2. An interesting case of progressive muscular atrophy, and said: The patient was a sailor, 45 years of age. The affection began about six months before admission to the Infirmary, and was supposed to have been brought on by exposure to cold and by severe muscular exertion. The disease, as is usual, was most marked in the right hand, and particularly in the thenar eminence of the right thumb, the metacarpal bone here being apparently uncovered, to some extent, by muscular fibre. The interossei of the same hand were also greatly reduced in size, as were the intercostal muscles of both sides of the chest. The patient was under treatment by galvanism, voluntary muscular action, simple good food, and by tonic medicines.

Dr. DRUMMOND showed a case of multiple nævi, and said: A child of six months, covered with the ordinary venous nævi, most of which are cutaneous and well raised. Varying in size from half a walnut to a split pea, they are situated principally upon the back, abdomen, chest, and scalp. Several of the subcutaneous variety are upon the shoulders and deltoid region, and are as large as a five-shilling piece. These vascular growths are of a very rapid formation. Every two or three days new growths are

noticed, and the old ones have a marked tendency to degenerate, which they do very quickly, but without any bleeding.

In reply to the President, Dr. DRUMMOND stated that he suspected the child might be syphilitic, but he did not think syphilis was the cause of the disease.

Dr. MURPHY showed a case of hydrocephalus, and said: The patient, whom I have the honour of showing to the Society to-night, is the sixth child of strumous parents; four of their children died in their infancy, and one is alive and healthy. The patient is a boy, æt. 7. When about a month old his head began to increase abnormally in size, and it has continued to increase ever since until now, when it measures twenty-eight and a half inches round the temples and occiput, and in the oblique circumference (round occiput and chin) thirty-one and a half inches. With this enormous development of head, the body has remained small, none of the muscles being much developed, and the whole body presenting an attenuated and shrivelled appearance, its length being scarcely three feet. He lost his first teeth when four years old, and the few he now has are irregular, and for the most part carious. He is quite unable to walk or sit up, or even to hold his head up, he talks very indistinctly, but appears to perfectly understand all that goes on, and his memory is very good. The head is of the usual shape in hydrocephalus, and the fontanelles are still open. I would be glad to have the opinion of the Society on the propriety of introducing the needle of the aspirateur through the anterior fontanelle, and drawing away the fluid; for my own part I think this would be justifiable, as you can feel fluctuation through the fontanelle, and I believe a large quantity of the fluid is between the brain and the skull cap; but on exploration, should the fluid be found in the ventricles, as is frequently the case, I would hesitate before attempting to remove it.

The PRESIDENT thought an operation in this case justifiable, especially if the fluid were extra-ventricular.

Dr. BYROM BRAMWELL thought the fluid was always in the ventricles.

Dr. HEATH detailed a case which had been successfully operated upon, and thought the fluid was not always intra-ventricular.

## SHORT NOTES OF THE CASE OF ENCEPHALOID DISEASE OF THE KNEE,

SHOWN AT THE DECEMBER MEETING.

BY MR. G. B. MORGAN.

ON the 10th December, 1877, I was asked to go into the country to see a pit boy, who, I was told, had been hurt while at his work in the pit, and was very ill.

I found, on visiting the house, a lad of fifteen in bed. He was much emaciated, and wore an exceedingly anxious expression. He lay upon his back, and moved in bed only with pain and difficulty.

The right knee was enormously enlarged, the actual girth of it 23 inches. It was semi-flexed, and felt tense and elastic; and on the outer side fluctuation was distinct; on the inner, the bony contour of the joint was easily traced.

The tumour did not appear to extend downwards into leg, but upwards the thickening was traceable into the soft parts of the thigh. Large veins were marked on its surface. There was œdema of the leg, and the limb was longer by three-quarters of an inch than its fellow.

The history I got was, that eight weeks ago, when at work, he fell over a piece of wood and hurt his knee; that he limped home with difficulty, and that he has been confined to bed ever since. I found, however, on more closely questioning him, that for a year he had suffered from "growing" pains in his knees; that for three or four months the right knee had been larger than the left; that the pain was from the first worse at night, and lancinating in character; that when he rose each morning he could not walk for a little while until the pain and stiffness went off; that he did give the bad knee a wrench in the pit; that since then it had become rapidly worse, and that his hectic and wasting had since then increased very much.

There was evident a desire on the part of the father of the lad to conceal the former part of his history, and to make it appear that all the symptoms had followed the alleged injury; for the purpose, as I afterwards learnt, of obtaining compensation from the Miners' Fund.

This made the diagnosis a little more difficult. The diagnosis was medullary cancer, and the lad was advised to come into the Sunderland Infirmary, which he did the following day, December 11th; and the next morning, December 12, the thigh was amputated through the upper third.

Constitutional disturbance at once ceased, his temperature becoming normal within twenty-four hours, and the stump healed

uninterruptedly. He was discharged on the 9th of January, twenty-eight days after the operation, with stump soundly healed.

The tumour when shown at the December meeting—the day after its removal—was a typical specimen of encephaloid cancer. On section, it was marked by arborescent septa, and here and there the knife grated upon minute spicula of bone.

Its microscopical characters have been most kindly reported upon by Dr. Byrom Bramwell, who says :—"I have just examined a piece of the soft outer, white part of your tumour of the femur. It is typically encephaloid, cells of all shapes and sizes. The medullary canal at the point of amputation is stuffed full of small cellular elements, many of them nucleated. These cells are round and angular in shape, and about the size of white blood corpuscles. The medulla is certainly not normal, but I failed to find in it any cancer cells similar to those found in the tumour itself."

The tumour appeared to spring from the periosteum of the lower third of the femur, and it spread up among the muscles. The knee joint itself was not involved.

On re-consideration, I think it would have been wiser to amputate at the hip joint; and were a similar case to present itself, I should do so, notwithstanding the protests of the patient's friends—for I greatly fear that this boy will suffer ere long from a return of this disease.

I remember, however, a case, many years ago, in which I amputated above the knee for encephaloid decrease in the leg of a woman. Almost before the stump was healed, tumours appeared among the muscles of the thigh. They were rapidly growing, and appeared in three places; one was cut down upon, and found to be a dense grissly mass. Arsenical arrows were inserted in all of them, which produced great constitutional disturbance, and caused the whole masses to slough out. However, the wounds all healed; and some years afterwards the woman had had no return.

A remarkable point about this case was the lengthening and hypertrophy of the limb below the disease, due, I presume, to the increased blood supply determined to the part.

This is the cast of the knee: its girth is 23 inches. The actual lengthening of the limb was three-fourths of an inch.

NOTE.—Communicated by Mr. Morgan at the adjourned meeting of the Society, April 11th.—The lad died April 4th. He had continued apparently quite well, and looked fresh and strong until March 17th when he shivered and complained of pain in the left foot and hand. His temperature was 103. The swelling and pain subsided, but cough and great dyspnœa came on, with night sweats, the temperature, however, always returned to normal in the morning. I was asked by Dr. Bernard to see him yesterday,

April 3rd, when he was propped up in bed, gasping for breath, and very much emaciated. As well as I could examine, I made out dulness over both lungs, but especially the right, and the respiration bronchial. There was no rise of temperature; no hæmophysis, and little sputa. He died this morning at 4.30. *Post mortem*.—The pleura was adherent to the sternum, which was raised with difficulty; both lungs were generally adherent, and on raising and the sternum I tore open a large cavity in the right lung. Very little of the lung substance was left; both lungs being changed into masses of dense structure of yellowish-white colour, and full of cavities. Some of these were large, and contained thin bloody fluid, and all broke down easily under the finger, and here and there were little gritty pieces. The liver was enlarged, but not nodulated, or apparently changed in structure. The heart was normal, the pericardium containing about 2 oz. of serum. The kidney was healthy; there had been no return of anæmia in stump or inguinal glands. Dr. Bramwell had examined a portion of the lung under the microscope, and reported that the new growth exactly resembled in structure the disease of the femur.

---

# CASE OF CONSECUTIVE EXCISION OF BOTH KNEE JOINTS FOR DISEASE, TERMINATING IN RECOVERY.

(WITH WOODCUTS.)

By JAMES BARRON, M.R.C.S., ENG.,

HONORARY SURGEON TO THE SUNDERLAND INFIRMARY.

STEPHEN H., æt. 45 years, married, ship carpenter, admitted into the Sunderland Infirmary on May 29th, 1877.

Eight years ago, whilst at sea as a ship carpenter, and sleeping frequently in wet clothes, his knees began to be painful and swollen, with nocturnal exacerbations of pain.

Returning from this voyage, he did not feel able again to go to sea, but commenced work as a shipwright on shore, and so continued until the summer of 1875. In this interval, he seems to have been regularly at work, but the knees were gradually becoming more swollen, and the pain more severe. About this time he was recommended to go to Croft Spa, and was there some weeks taking the sulphur baths; but not experiencing the benefit anticipated, he was removed thence, and admitted into the Durham County Hospital, where he remained seven weeks. He, however, came home unrelieved, and resumed work, though the swelling was still increasing, and the knees were now becoming somewhat flexed.

On the 12th of October, 1876, he was admitted into the Edinburgh Infirmary, where he was first, for three weeks, placed in the surgical wards. After that time, he was transferred to the medical wards, and the knees were painted and blistered. After eleven weeks, receiving no benefit, he was discharged, and he returned home in the last week of December, 1876. When he left the Edinburgh Infirmary, the contraction of the knees had so much increased that he was unable to walk about.

On the 29th of May, 1877, five months after leaving Edinburgh, he was admitted into the Sunderland Infirmary under my care.

On admission, he was in a somewhat debilitated condition, but except in the knees, there were no physical signs of disease.

Examining his knees, I found them fixed at a right angle, the thighs flexed and abducted, and the feet approximated, so that his position in bed was much like that of a tailor at his board. *Right knee*: joints much swollen and hot, surface glossy, pink, and marked with a network of distended veins. *Left knee*: less swollen, skin nearly natural in appearance and temperature. The muscles of both legs were much wasted.

*Previous health* has always been good; has never had any illness; has been a steady man, but seven years ago, had a slight attack of gonorrhœa, which lasted only a few days, and was not succeeded

by any secondary symptoms. Married fifteen years; no family living, but his wife has borne him four children, the first of whom died a few hours after birth, and the others at six, eight, and twelve months respectively, as he says, of inflammation of the lungs. His wife has had no miscarriages.

*Family history* is entirely negative; no rheumatism; no joint affection; no chorea; and no consumption.

For about three weeks after admission, iodine was painted on both knees, and a blister was applied, but without any apparent advantage.

After much consideration, and consultation with my colleagues, I decided to perform excision of the joints as the most likely means of relieving my patient from his unfortunate position, and procuring for him, as I hoped, good and useful limbs. He and his family were duly informed of all the possible evil consequences that might result from a failure in the operation, but he quickly decided in favour of my recommendation, only desiring me, if possible, to save his leg.

*First Operation.*—On June 20th, 1877, with the kind help of my colleagues, the patient being first placed under the influence of chloroform, I proceeded to excise the right knee-joint. The operation was performed in the usual way, by a curved incision, and under complete antiseptic precautions. On opening the joint, the synovial membrane was found in an advanced stage of gelatinous degeneration; the cartilage on the inner condyle of the femur was ulcerated, as was that on the corresponding surface of the tibia, and there was partial dislocation of the tibia backwards. Before closing the wound, as much as possible of the diseased synovial membrane was removed. A drainage tube was inserted along the floor of the wound from side to side, and the limb put up straight on an ordinary Macintyre splint.

There was nothing particular to record in the progress of the case; the drainage tube was removed on the 29th of August, the seventieth day of treatment, and on September the 15th, the eighty-seventh day, bony union was complete, and the splint was discarded. During this time, the swelling and heat of the *left* knee had subsided, and there was partial bony ankylosis.

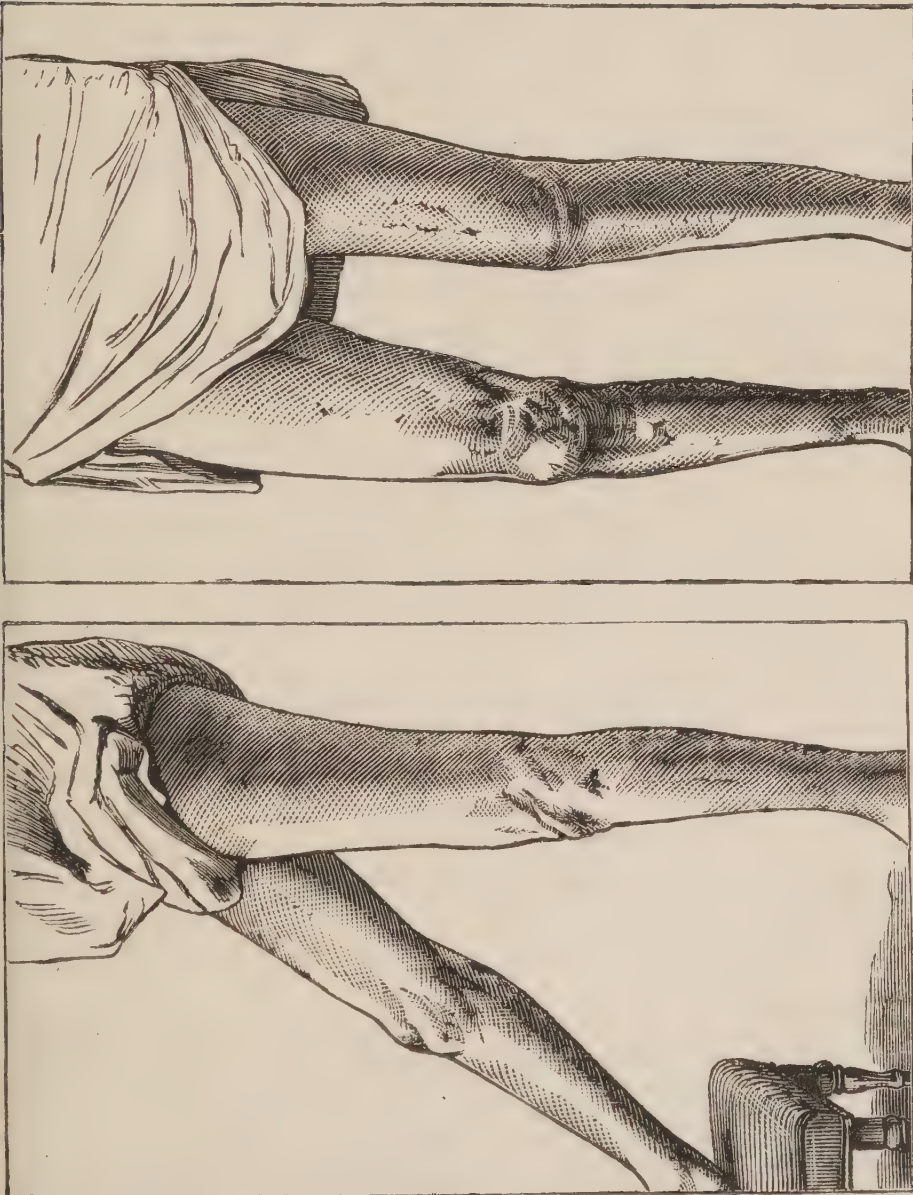
*Second Operation.*—The first operation having been so successful, I was encouraged to proceed with the excision of the left knee; and accordingly, on October the 10th, I performed the second operation. This was done, as before, under complete antiseptic precautions. On opening the joint, there was found bony ankylosis between the tibia and posterior portion of the articular surface of the femur, the tibia being dislocated backwards.

In the first operation, adaptation of the bones was easily accomplished, but in the second, perfect adjustment was not effected until a second piece was removed from the tibia, and two or three

of the flexor tendons divided. The patella was removed in both operations.

The case progressed even more favourably than on the first occasion. The drainage tube was removed on December the 10th, the sixty-first day of the treatment, and bony union being complete on January the 18th, 1878, the hundredth day, he was allowed to be up for the first time; the two operations having been brought to a successful termination within a period of seven months, or 212 days.

The *difference* in the length of the two legs *scarcely amounts to the eighth of an inch*. The appearance of the legs after operation is seen in the figs.



The two wood cuts represent, the one, a front, and the other, a side view, of both legs. In the front view, the right leg is observed to be somewhat bowed outward, but this is not dependent upon the operation, as the patient explains that both his legs were bowed before they were operated upon. The cuts are from drawings by Dr. T. W. Barron, taken from photographs.

*Remarks.*—In concluding the history of this case, I would make a few observations on one or two points which appear to me to be of interest.

*Age.*—Stephen H. was 45 years old in April, 1877. He had reached the extreme limit beyond which surgeons are agreed that excision should never be undertaken. Mr. Swain, in his work on *Injuries and Diseases of the Knee-joint*, at page 151, says:—"I would rather excise a knee-joint in a patient before the age of forty than after. The powers of reparation in advanced life are not sufficiently strong to give the patient much chance of a useful limb, or to support him through the long after treatment."

In the list of 104 cases given by Mr. Swain, five only are above the age of forty. They are as follows:—

1. (Case 27.) Female, aged 43 years, after firm osseous union, died from embolism on the eightieth day.
2. (Case 75.) Male, aged 45, good union with recovery. *No other details are given.*
3. (Case 77.) Female, aged 46. No union on the 143rd day: died of phthisis.
4. (Case 80.) Female, aged 41. No union in seventeen weeks, or 119 days. *Amputation* with recovery.
5. (Case 92.) Female, aged 42. On the 205th day there was still slight movement in the antero-posterior direction.

Thus, of the five cases said to be over forty years of age, two died; one underwent subsequent amputation, with recovery; and two recovered, one with firm union, the other doubtful. That is, only one recovered with good union, and nothing is said as to the nature of the union, whether bony or otherwise, and nothing stated with regard to the duration of the treatment.

*Duration of Treatment.*—In my patient, bony union was complete in both legs in a period of seven months, or 212 days. In the first operation bony union was complete on the eighty-seventh day; then an interval of twenty-five days elapsed, after which the second operation took place; and on the hundredth day thereafter, bony union was complete, and the patient allowed to get up for the first time. If we exclude this period of twenty-seven days intervening between the date of the recovery from the first operation, and the date of the second operation, then the duration of the treatment in the two cases extended over a period of only 187 days.

Dr. Holmes, in his *Treatise on Surgery*, quotes some tables compiled by Dr. Hodge, in which he gives 86 cases where the *average* duration of the treatment is stated to have been 240 days; 48 cases in which the patella was removed occupying an average period of 225 days; and 38 cases where the patella was believed to have been left, occupying an average period of 255 days, or, roughly speaking, about eight months.

In examining the cases given in Mr. Swain's list, I have selected twenty-eight cases from it which seem to afford something like precise information with regard to the duration of treatment. Six cases are given at the age of ten years and under, and the average duration was a little more than eighty-one days. Above ten and under twenty, ten cases are given, with an average of 101 days. Above twenty and under thirty, nine cases are given, averaging rather over ninety-seven days. Above thirty, two cases, average seventy-three days. One, aged 42, a duration of 205 days.

There cannot be a doubt, however, that in the more recent cases of excision of the knee-joint, statistics of a much more favourable character could be given, as to the duration of the treatment, than in former reports. And this is not more than what might reasonably be expected, owing to the greater skill and experience more lately acquired in the dressing and general treatment of the cases, and especially to the comparatively recent adoption of the antiseptic treatment.

As regards the adoption of amputation or excision in cases of knee-joint disease, Sir Wm. Ferguson has expressed his deliberate opinion "that in eight persons out of ten, under the age of twenty or thirty, in whom disease of the articular surfaces of the bones of the knee-joint seems incurable, the operation of excision should be preferred to that of amputation." And he gives his reasons. "The wound is less, the bleeding less, the loss of substance is less, the shock is consequently less, and the chances of secondary hæmorrhage scarcely worth notice, as the main artery is left untouched, whilst there is the encouraging prospect of retaining a useful and substantial limb." The difference in the duration of the treatment in cases of amputation and excision has been urged against the latter operation, but this, I think, is a matter of little importance in comparison with the object to be attained; and so long as a good and serviceable limb be secured, it is scarcely open to adverse criticism that the patient should be made to lie for a period of six, or even more, months. But, further, I believe that as greater experience is gained in matters of detail in the care and management of the cases, this difference will be reduced to a minimum.

My own personal experience has been extremely limited, having only performed excision once before, resulting, however, in a rapid recovery, with a good, strong, and useful limb.

Then, in the way of warning, I would say that in reading the details of a great many cases, I have been particularly struck with the frequent occurrence of deformity after excision recorded in subsequent months or years; and I am forced to the conclusion that many of the patients, who have undergone this operation,

have been allowed to bear their weight upon the leg much too soon, and at a time when perfect consolidation of the new bone cannot yet have taken place, thus leading to partial dislocation of the tibia in different directions, generally outwards and backwards.

In conclusion, I would add that I am not aware that there is any case on record where excision of both knee-joints has been performed on the same person. I believe this case to be *unique* in the history of excision of the knee-joint.

In closing my remarks on this case, I would, for a moment, gratefully take this opportunity of expressing my deep sense of the obligation I feel I am under to my kind and able friend, Dr. Ransom, the Senior House Surgeon to the Sunderland Infirmary; for it is to his patient, unwearied, and skilful management of the case that I am chiefly indebted for the happy and fortunate result that has been obtained.

The PRESIDENT and Dr. HEATH complimented Mr. Barron on the very successful issue of his most interesting and unique case.

On the motion of Mr. HAWTHORN, it was resolved to hold an additional meeting of the Society in April.

# ADJOURNED MEETING.

---

AN additional meeting of the Northumberland and Durham Medical Society was held in the Library of the Newcastle-upon-Tyne Infirmary, on April 11th, 1878. The President (Mr. G. B. Morgan) in the chair.

The following gentleman was elected a member of the Society :—

Samuel Warren, M.B. (Dub.), Castle Eden.

The following gentleman was proposed for election as a member :

James O'Flanagan, L.R.C.P., E., L.R.C.S., Houghton-le-Spring.

---

## PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG presented the following

*Return of Admissions to the Newcastle Fever Hospital during the month of March, 1878 :—*

Typhus	...	...	...	...	...	...	1 case.
Scarlet Fever	...	...	...	...	...	...	4 cases.
Total							5 „

There have been no deaths in the Hospital during the month. The case of typhus was due to infection from one of the cases previously reported.

One of the cases of scarlet fever was anginose, the others were simple. In two of the simple cases there was no subsequent desquamation—although the eruption was marked; in one of these the rash, when first noted, consisted of small closely set papules, distinct from each other, and having intervals of white skin between, but afterwards assumed the ordinary lobster-like appearance.

The PRESIDENT stated that a case of confluent small-pox had occurred in an unvaccinated child, at Sunderland. The origin of the case could not be traced.

---

## REPORT OF THE SUB-COMMITTEE APPOINTED TO CONSIDER THE QUESTION OF THE PROPAGATION OF INFECTIOUS DISEASES THROUGH PUBLIC DAY SCHOOLS.

The PRESIDENT stated that some slight verbal alterations had been made in the report, and that the following resolution had been come to by the sub-committee :—

"Your committee recommend that a copy of this report be forwarded by the Secretary to the various English Medical Societies, asking them to join the Northumberland and Durham Medical Society in pressing the matter on the Government; and that such further steps be taken as may be thought necessary."

---

## PATHOLOGICAL SPECIMENS.

Dr. HEATH showed—1. Tibia with large excavation in head of bone, the result of malignant disease, and said that the morbid specimen had been removed from a male patient of about 30 years of age. It was an example of the occurrence of the disease in its most common site but one, the lower end of the femur being the most common site. The patient had first sought advice in Nov., 1877. Dr. H. saw him on February 25th, 1878, when there was an opening in the coverings of the bone, through which a soft fungus growth projected and blood clots were oozing. The finger passed through this opening into a deep cavity with irregular bony walls, occupied by a soft easily lacerable growth which bled freely, and by loose fragments of bone. The soft structure had entirely disappeared during the preparation of the specimen, and there now remained simply the cavity and a sequestrum of bone which had probably occupied the centre of the cavity, and whose vitality had been destroyed by the rapid increase of the growth. Secondary deposit had commenced in the groin. Dr. H. regarded the disease as interstitial soft cancer of excessively vascular structure.

2. Lower end of femur, removed from female patient 56 years of age, and said: The preparation showed disease at what may be termed the place of election in the femur, viz., the popliteal surface. Here there was a bare surface of bone limited by thickened edges of periosteum, and in the centre of the denuded surface an opening large enough to receive the finger point. Within fragments of dead bone could be felt. At the time of the operation, a thin sequestrum bearing the appearance of having been wasted by absorption or by the action of pus, lay loosely over the denuded surface and between the thickened edges of periosteum. The femur had been fractured in the lower third of the shaft, and three inches above the cloaca, about fourteen days before the operation, without violence, and whilst the patient was walking across the room. The history of the case was curious, and showed the great length of time during which disease in bone might go on. When the patient was ten years old, there was a fistulous opening in the lower part of the thigh, and since that time she had not been free from suppuration and fistulous openings, sometimes on one side sometimes on the other of

the ham. No portion of bone had ever come away. Previous to the operation, when Dr. Heath first saw the patient, the thigh was occupied by an immense collection of matter communicating with a sinus on the inner side of the ham. When the bone was sawn through at the operation, an inch and a half above the fracture, pus exuded from the medullary cavity. Another inch or more of bone was sawn off, but the cavity was still occupied by pus. There was no communication between the cloaca in the popliteal portion of the bone and the fracture, nor between the fracture and the medullary cavity above, wherein pus was contained. The suppuration in the canal was probably infective in character, so that the death of the patient three weeks after the operation, from pyæmia, in spite of antiseptic treatment, was not unexpected.

3. Glandular tumour from the neck of boy, æt. six. Dr. Heath remarked that the specimen consisted of several lymphatic glands, varying in size, and held together by connective tissue, the whole making up a considerable mass. The tumour was not so large as some he had met with in the same region, but in comparison with the size and age of the patient, it was of considerable size, and occupied during life the whole of both triangles of the right side of the neck. It was placed beneath the deep fascia of the neck, and had deep attachments, although it looked superficial. Posteriorly it extended beneath the border of the trapezius, below it reached behind the collar-bone and came in contact with the subclavian vessels. The external jugular vein crossed its superficial surface obliquely. In front it passed down behind the sterno mastoid, and when this muscle was drawn aside the deep jugular vein was seen lying flattened for nearly its whole length upon the surface of the anterior portion of the tumour. The common carotid artery was pushed forward towards the median line by the anterior border of the growth. Above, a loosely connected portion consisting of a single gland ascended behind the carotid and styloid process. Its arterial supply was taken from the transverse branches of the thyroid axis below and above from the external carotid. Very careful dissection was required to free the growth from these deep attachments. Very little blood was lost during the operation, which was done on Saturday, April 7th. The patient had progressed favourably, and on that day, April 12th, was able to sit up. Chloroform was administered by Dr. Hope; Dr. Walker, of Middlesbrough, and Mr. Bowman assisted at the operation.

4. Popliteal artery and vein from a young gentleman, æt. 25, who had undergone amputation in lower third of the right thigh on account of mortification of the limb following an accident. The patient had been thrown from the driving seat of a carriage,

March 24th, in the dark, and was found lying on the road when the conveyance was stopped. No account could be obtained of the manner in which the injury was produced, but Dr. Heath understood that numbness of the limb was complained of from the first. Ten days after the accident the foot was cold and mottled over the metatarsal region, whilst the cuticle was raised from the cutis of the sole which was dark. Gangrene progressed slowly but persistently until it reached a little above the popliteal space behind; up to the articulation on the inner side, to a line about  $3\frac{1}{2}$  inches below the joint in front and upon the outer side. At these limitations a line of demarcation formed, and was distinct on April 7th. On the 10th, the limb was removed at the lower third of the thigh. During the operation it was discovered that a suppurating sinus extended along the sheath of the vessels some  $2\frac{1}{2}$  inches beyond the point where the bone was sawn. This was injected with chloride of zinc solution (saturat). Up to the date of the meeting patient had progressed favourably. Mr. Taylor, pathological assistant at the Infirmary, had kindly dissected out the popliteal vessels, and removed them. The artery showed two distinct conditions abruptly separated at a point corresponding to about the centre of the popliteal space. Above this point, the artery was distended and filled with clot; below the point, the artery was contracted, flattened, and empty. On carefully laying open the artery, the internal coats were found divided at the point above named, and turned back so as to form two valvular pouches. Above, the canal was filled with firm coagulum which projected into the pouches; below, it was empty and contracted. The vein was filled with coagulum throughout. The condition of the artery was no doubt the principal cause of the gangrene. Plugging of the vein would assist, render death more rapid, and the mortification more humid in character.

5. The face portion of skull immediately adjoining, and the brain from a suicide. The preparation showed a ragged opening somewhat oval in shape, large enough to receive the end of the little finger through the anterior third of the palate. A probe introduced here passed in an almost straight track, but deviating slightly to the right and backwards up to the cribriform plate of the ethmoid, which was destroyed on the right side and entered the skull. The crista galli was broken off, and the opening into the skull was three-quarters of an inch in length. The conical bullet was found lying in the opening through the cribriform plate. The brain presented an irregular, somewhat sloughy surface on the inferior aspect of both anterior lobes, and pus had passed backwards into the ventricles and to the base of the brain. The patient had no brain symptoms when seen by Dr. Heath. A long bullet probe passed readily, along the track

described, during life, and sufficiently far to show almost with certainty that the cranial cavity had been penetrated. The patient passed out of Dr. H.'s hands before any brain symptoms appeared, and he was indebted to Dr. Cook, of Gateshead, for the subsequent history of the case, and for an account of the brain after death. He says:—"The Pole was admitted into the Workhouse Infirmary on the evening of the 1st of March. He continued in much the same condition until the 8th, when he died. Was able to speak a few sentences consecutively occasionally, then wandered. Spoke about his business, &c. Restless at nights. Swallowed food of a fluid character well. No sickness. Loss of power over bowels, but passed urine all right. Used to do it when he got up. Pupils contracted. Pulse never under 120. Paralysis set in on the 7th, about 4 p.m., on the left side, and during the night attacked the right. He died the following day. *Post mortem*:—On removing skull the brain coverings very much congested, middle meningeal artery on both sides much so. Pus seen underneath the brain covering at anterior portion of right hemisphere. On removing them, they were slightly adherent. The bullet was buried in the cribriform plate of the ethmoid, turned over in its flight. The splints of bone were forced into the brain substance. The bullet is of the detonating kind evidently, as there was burning of the mouth or tongue. Treatment, expectant, Condyl's fluid."

Dr. MURPHY showed—1. Tarnier's Obstetric Forceps, and said: There is not, Sir, and there never was, in the whole armamenta of surgery and obstetrics, an instrument which has undergone so many modifications as the midwifery forceps. "Much has it suffered of many physicians," from its original form, as described by Albucasis, under the name of *Misdach*, down to the various shapes used in our own time, the most recent of which—the forceps of M. Tarnier—I have the honour to present to the Society to-night. Time does not permit me to enter into a detailed history of the vicissitudes of the forceps, of how it disappeared altogether for a long period of years, and was revived again by Dr. Paul Chamberlain, and kept secret by him and his sons for many years; how it gradually got into general use; how earnestly it has been praised by some, and abused by others; until finally it reached its present exalted position, when it is regarded as the grandest instrument the head of man ever designed or his hand used, either as a means of saving life or relieving pain. And here I would enter my protest against hastily condemning any instrument solely on the ground of its being a little complicated. No one admires simplicity more than I do; but I regard it to be of minor importance to efficiency, and I never hesitate to use a more perfect, though more complicated instrument, in preference to a less efficient, though more simple one.

The advantages claimed by M. Tarnier for his forceps are three, namely: 1st. Traction in the axis of the pelvic cavity rendered always possible. 2nd. Mobility of the head preserved. 3rd. Such an arrangement of the instrument that one of its parts, the prehensile branches, indicates always to the operator in what direction he should make traction.

The instrument consists of two blades, the prehensile branches, something like an ordinary double curved forceps (but the handles curved backwards instead of being straight), which cross each other, and are secured by the French lock; from the posterior portions of these blades, a little beyond where the fenestrum commences, two bars are hooked on; these bars are the traction stems, and are attached to a transverse handle, which permits a certain amount of movement. These traction stems are curved, and do not cross. When the traction stems are placed in a direction parallel to the prehensile branches, separated by a space of about one centimetre, the operator draws exactly in the axis of the pelvis. The traction stems at the level of their point of attachment being moveable, the prehensile branches, which have seized the head, and consequently the head itself, are also moveable.

Finally, to say that the traction stems must always be placed near the prehensile branches during the pain, no longer making traction in the axis, is to recognise that the prehensile branches indicate always how traction must be made, in order that it should take place in the axis. These prehensile branches, which are mobile, and are displaced with the head, constitute them a real indicating needle which will show the operator what direction the traction stems ought to follow.

It seems to me that this forceps would be of very great service in those cases where the head is very high up, more especially when the waters have come away and the uterus is contracted tightly round the foetus, thus rendering it difficult "to turn." But I hope at some future time to give my experience of it. This I am unable to do at present, as I only received it last evening, though I have been trying to get it for several months back; and for this purpose I applied to several instrument makers in London, and was invariably told they had never heard of such an instrument. At last, in despair, I applied to Messrs. Hewlett, who got it for me in twenty-four hours, and from whom the forceps may be got by any members of the Society who may wish to try it.

2. A Double Monster, and said: Through the kindness of Dr. E. Allan Maling, of Sunderland, I am enabled to show the Society to-night a very fine specimen of a double monster, which he met with in his practice, a day or two ago. We have here two—almost perfect—children, females, joined together along the chest





DR. MURPHY'S MONSTROSITY.

and upper portion of the abdomen, the skin of the one continuous with that of the other, and each child complete in itself, except at the lower portion of the abdomen, where the integuments and muscles are absent; and the intestines are only covered by peritoneum. I saw in the Museum at Leyden, a few weeks ago, a similar specimen, the skeleton of two children, each perfect in all its bones, except the sternum, which served for both; apparently the breast bones had united into one.

The accompanying lithograph, which is taken from a photograph, so clearly shows the state of affairs that no further description is needed beyond the following notes of the case by Dr. Maling, who is to be congratulated upon delivering a woman of that enormous mass, and still preserving her perinæum intact.

"On April 10th, 1878, at eight a.m., I was summoned to attend Mrs. W. in her second confinement, her former accouchment being ten years since. I found she had been in labour since five a.m. The pains were fairly strong, and occurring every five minutes. The os was fully dilated, the membranes ruptured, and the head presenting and well down in the vagina. From the character of the pains and advanced state of the labour, I expected it would be soon over; but in this I was disappointed, for after waiting nearly an hour and a half, and finding no progress, but a large succedaneum forming, I deemed it advisable to make a further examination. The pelvis being capacious permitted me to pass my hand round the head. I found the face turned towards the pubis, but nothing to account for the delay, and, after waiting another hour, I applied the forceps, and with some difficulty got the head delivered, but found it almost impossible to extract the shoulders. By hooking my forefinger into the armpit, I got the arms down after getting the shoulders through the outlet; and still finding an impediment to the further progress, I passed my left hand along the back of the child into the uterus, where I discovered another child attached to the one already partly delivered. As far as I could ascertain, they were joined to each other at the abdomen. I partly withdrew my hand, and pressing it firmly over the buttocks of the first child, at the same time grasping the neck with my right hand and using a considerable amount of traction, succeeded in getting the first child delivered. The legs of the second coming with that of the first, no difficulty occurring in the delivery of the body and head of the second child. The children lived a few minutes after delivery. The mother had uninterrupted good recovery."

## CHOREA TREATED BY SUBCUTANEOUS INJECTION OF CURARA.

By D. D. DRUMMOND, M.D.

A BRIGHT intelligent girl, of seven years, was brought to the Children's Hospital as an out-patient, about the middle of October last, two or three weeks after the commencement of an attack of chorea. She was seen at the out-patient room several times, and treated with bromide of potassium and arsenic for general chorea. On the 12th of November, no abatement of the movements having taken place, she was admitted into the hospital, about six weeks subsequent to the first appearance of the disease—a period when many children suffering from this affection begin to improve. I had been for some time anxious to try the effect of curara, or woorara, as some name the drug, in chorea, but as a rule, as is well known, the attack only lasts about eight weeks, and consequently any experiment is apt to be fallacious, for what influence in the cure is ascribed to the therapeutic agent is most probably due to the *vis medicatrix naturæ*. But, in my present case, the disease was evidently not going to run its most usual course; therefore, I resolved to try the poison known for a long time to experimental physiologists, but only recently, I apprehend, to therapeutists—the fact that it has been recommended in hydrophobia having brought it prominently before the profession. With some trouble I procured two drachms of a one per cent. solution—all the curara that was to be obtained in Newcastle.

Commencing with five mins., by the mouth, about  $\frac{1}{20}$ th of a grain of curara three times a day, and in a few days increased to  $\frac{1}{10}$ th, which was continued for nearly a fortnight, by this time no improvement having taken place, and all the curara used. Whilst getting some more, I put her upon a mixture containing croton chloral grs. 3 and bromide of potassium grs. 10, for the dose three times daily, which in a few days was doubled—that is, 6 grains of chloral and 20 of the bromide three times daily. This treatment was continued for about ten days, but without effect, the choreic movements becoming more exaggerated. I now received a second supply of curara, as before, in solution, but this proved to be quite inert, even a  $\frac{1}{4}$  of a grain administered subcutaneously produced no physiological effects. I was about to give up the trial as hopeless, when Mr. Bolam, chemist, of this town, procured a few grains of the solid curara, and made a solution himself for me. It was now about fourteen weeks since the origin of the attack, and still no appearance of the choreic movements subsiding. Of this solution, I commenced on January 5th with the  $\frac{1}{40}$ th of a grain subcuta-

neously, only giving one injection in the day. On the 7th, I injected  $\frac{1}{20}$ th, next day  $\frac{1}{10}$ th, on January 9th  $\frac{1}{5}$ th was used; she was by this time very much quieter. On the 11th January  $\frac{1}{5}$ th, after which she was nearly steady; two days afterwards she got the  $\frac{1}{4}$ th of a grain. After this it seemed unnecessary to push the administration of such a potent poison any further. It is very unfortunate that the specimens of curara vary so in their strength and quality.

Curara found in commerce is a brown-black resinous mass, soluble in water, but very slightly so in alcohol. The best solution for hypodermic injection is an aqueous one; it keeps well, and is, I imagine, less painful when used than either the alcoholic or the water and glycerine solution. One grain to twelve mins. of water makes a nice solution. The curara should be left in the water for 48 hours, and then filtered. The dose seems to be about  $\frac{1}{4}$  to  $\frac{1}{2}$  of a grain, though, owing to the uncertainty of the specimens, it is probably well to commence with much less quantity.

Of course, the rationale of the treatment of such affections as chorea, rabies, &c., by curara depends upon the researches of Bernard, who, in 1844, discovered that the poison paralysed the ends of the motor nerves; and Schiff observed that the sensory nerves have to some extent their conducting power destroyed and reflex action much diminished, but that they are less affected, and after a longer interval, than the motor nerves. Death would eventually occur through paralyses of the respiratory centres, the circulation remaining almost normal. Sir Benjamin Brodie managed to save animals apparently killed by curara by keeping up artificial respiration until the poison was eliminated. Curara administered by the mouth seems to have very little effect, but should be injected under the skin. Ludimar Hermann explained this fact by showing that when the kidneys were cut off from the circulation physiological effects could be produced as well, though more slowly, through the stomach as by direct introduction into the circulation, the poison being very rapidly eliminated by the kidneys. A curious fact, and one which was well exemplified in my case, is that even after the muscles are pretty well curarized they react to electrical stimulus as perfectly as normal muscular tissue does. I compared the electrical reaction of the muscles of the forearm of the child (the subject of this case) with a healthy child and there was no difference. Bernard laid stress upon this fact, and showed that the muscles of a curarized frog, stimulated by a galvanic current, reacted perfectly; but such was not the case when the current was applied to the nerve itself, the muscle supplied by it refusing to contract.

## NOTES ON A CASE OF SUCCESSFUL SINGLE TAPPING OF AN OVARIAN CYST.

By G. H. HUME, M.D.

IN his work on "Diseases of the Ovaries," Mr. Spencer Wells relates one or two instances, and refers to others in which simple tapping through the abdominal wall had been followed by a radical cure of an ovarian cyst. The incident is yet of sufficient rarity to suggest to me that the following short note upon a case of this kind may be of interest to the Society.

The patient was an unmarried seamstress, aged 40. She first noticed some enlargement of the abdomen in the early part of 1874. Throughout that year the enlargement slowly increased; but the suffering or inconvenience was not so great as to induce the surgeon whom she consulted to recommend active surgical interference. In the beginning of 1875 more rapid increase occurred, and I was asked by my friend, Dr. Wm. Murray, to see the patient, with a view to the performance of ovariectomy.

At that time the abdomen was greatly distended, and a good deal of pain was complained of as well as interference with respiration. A single cyst, probably without adhesions, was diagnosed.

The patient's consent to the operation was readily given, and a day fixed for its performance. On the afternoon of the day previous, however, menstruation, which had not occurred for three or four months, came on, and rendered imperative a delay of a few days. During this interval I became unavoidably in attendance on a case of phlegmonous erysipelas; and, feeling that under such circumstances I should not be justified in performing ovariectomy, I determined to relieve my patient for a time by tapping. This was done in the month of March. A large quantity of clear limpid fluid was drawn off. The tumour entirely subsided, and no irritation or pain followed the tapping.

Three years have now passed and no accumulation has taken place. The lapse of time seems, therefore, to justify the description of the case as one of successful single tapping.

The occasional occurrence of such cases suggests, I think, the advisability of tapping in cases of single cyst before subjecting the patient to the grave risks of ovariectomy. The tapping frequently yields valuable information; and it has been proved not appreciably to increase the danger of the greater operation.

## CASE OF OVARIOTOMY.

By G. H. HUME, M.D.

M. B., married, æt. 26, was admitted on 20th December last into the Newcastle-on-Tyne Infirmary, under the care of Dr. Philipson. She was suffering from an abdominal enlargement, which had been first noticed during recovery after confinement, nine months previous to admission. The disease was diagnosed to be an ovarian multilocular tumour. At the time of her admission, patient suffered from occasional attacks of pain, and from a tendency to looseness of the bowels. She was, therefore, kept in bed, and occasional doses of Dover's powder were given. Under this treatment the condition of irritation gradually subsided.

As acting surgeon for Mr. Russell, I was requested by Dr. Philipson to see the case in consultation with him, and when—all signs of irritation having disappeared—her condition seemed to have become more favourable for operation, the patient was transferred to my care.

Ovariectomy was performed on the 25th of January. The tumour was multilocular, with a good deal of solid matter. Adhesions existed to the wall of the abdomen, and to the omentum; and the separation of these, and dealing with bleeding surfaces afterwards, occupied much time. The thin flattened pedicle was tied in three divisions with whipcord and returned into the pelvis. Catgut ligatures and the strong liquor from pentlorich were the means used in arresting hæmorrhage from the torn adhesions. A large Cæntchorn drainage tube was passed deeply into Douglas' space and brought out of the lower angle of the wound. It had not been found necessary to extend the incision above the umbilicus, and the wound save at its lower end was brought accurately together by sutures of carbolised silk. The operation was done under the carbolic spray, and the antiseptic method was followed throughout the after treatment.

On the day following the operation—the 26th—the dressings were removed and found to be soaked with sero-sangminolent discharge. After this the amount of discharge in the dressings was at no time considerable. When an attempt was made to remove the drainage tube on the second day, it was found to be firmly adherent. It was therefore allowed to remain, and it did not become detached so as to permit its withdrawal without the use of force till the 31st, nearly a week after the operation.

Until the 2nd of February the patient went on well. For three days after the operation she was supported entirely by enemata. Feeding by the mouth was then cautiously begun, and seemed to be well borne. Unfortunately, during the night of the 1st to the

2nd of February the patient was allowed to have a large quantity of both milk and beef tea, and as a consequence of this indiscretion sickness came on during the day following. Even when nothing was given by the mouth but ice the sickness continued, and on the 4th the vomited matters were stercoraceous. For the next two days patient's state remained unchanged. On the 6th the bowels acted, but vomiting persisted for two days more. On the 8th there was sickness, but only bilious fluid was brought up. From this date the sickness ceased, and a return was cautiously made to feeding by the mouth. Patient's progress was now steady and uninterrupted, and she left the hospital on the 2nd of March. The wound had then been for some days quite healed.

The history of this case offers one or two points which are worthy of remark. In the first place the prolonged rest and preparatory treatment contributed in my opinion very materially to the success of the operation. At the time of admission into the hospital, both peritoneum and intestinal mucous membrane were in a condition of irritation which must have greatly increased the risks of interference.

The operation and after-treatment were conducted throughout antiseptically. The carbolic spray was employed during the operation of the usual strength and in full volume. It passed, therefore, freely into the peritoneal cavity; and the case illustrates, what has already been clearly established, that carbolic acid of the strength used does not hurtfully irritate the peritoneum. In what measure the antiseptic treatment contributed to the success of the case it is impossible to say. The value of antiseptics in ovariectomy is as yet undecided, and will require for its decision the collection and comparison of cases in adequate number.

The use of the drainage tube seemed to be of undoubted advantage, in giving vent to the large amount of sero-sangminolent discharge during the first twenty-four hours after operation. A German surgeon, Dr. Carl Schröder, in a recently published report of fifty antiseptic ovariectomies, discountenances the employment of the tube. But in all cases in which the separation of adhesions renders certain the occurrence of copious after-oozing, it must surely be better practice to provide means of exit for the fluid than to permit its accumulation in the abdominal cavity by completely closing the wound.

The chief interest of the case—and that which constitutes my excuse for occupying the time of the Society with its history—is found in the recurrence of stercoraceous vomiting a week after operation. When the vomiting came on the matters were simply bilious, and the disordered condition was attributed to the gross dietetic error which was known to have been committed.

But when the vomiting became stercoraceous the probability of its dependence on mechanical obstruction of the intestine was strongly suggested. In operating, I had, with some misgiving, employed the intra-peritoneal ligature; being, however, encouraged in its adoption by the success which has attended its use in this hospital. I had been influenced against it by the opinion of Mr. Spencer Wells, more especially by his belief that the retained ligature is apt, through inducing adhesions between the stump of the pedicle and coils of intestine, to produce obstruction of the latter. For some days I feared that my case would prove an example of this untoward occurrence. Happily the event showed, I think, the accuracy of the view which was held throughout by Dr. Philipson, who regarded the vomiting as due to reversed peristaltic action, the result of the injudicious feeding and of the exhausted condition of the patient.

Dr. PHILIPSON said he appreciated highly the kind way in which Dr. Hume had mentioned his name in the very able paper which he had read. When the patient was first admitted under his care, she was suffering from both peritonitis and entitis. In addition to the ovarian tumour, there was some fluid in the cavity of the peritoneum. Dr. Hume and himself had been quite agreed as to the propriety of the operation. The reasons for thinking the stercoraceous vomiting depended simply on inverted action of the gut and not on any mechanical obstruction such as would be caused by the constriction of adhesions, so that the abdomen was not locally distended, and that the vomiting matter, after a time, closely resembled the enematic given per rectum.

Dr. GIBSON suggested that the stercoraceous vomiting depended upon invagination of the intestine, and not simply upon inverted action.

The PRESIDENT stated that the same idea had occurred to himself, but the fact that the fluids injected into the rectum returned by the mouth was fatal to this view.

Dr. HEATH complimented Dr. Hume on the successful result. The case was by no means a straightforward one. With regard to the use of the drainage tube, his experience led him to think, that in simple cases, such as unilocular cysts, where there was no great amount of adhesions, and where the peritoneum was little interfered with by the surgeon, a drainage tube was unnecessary; he would, however, recommend it in all cases where the operation was likely to be any considerable amount of effusion into the peritoneum. He preferred introducing the drainage tube from the lower angle of the wound rather than through the vagina, as had been suggested by some writers. With regard to the treatment of the pedicle, he was strongly in favour of tying it, not

with catgut, but with strong carbolised silk, and of leaving it in the peritoneum. If it were cut very short, the risk of the formations of adhesions to the intestines was reduced to a minimum. In his own practice obstruction of the intestine by adhesions had never occurred.

Dr. HUME, in reply, pointed out that Dr. Gibson's suggestion of the probable existence of invaginations of the gut was so far contradicted by the absence of distension, With reference to his own fears of mechanical obstruction, he (Dr. H.) alluded to the experiments of two German pathologists, which are referred to in Spencer Wells' book. In these experiments, which consisted in the application of ligatures to parts of the pelvic organs, it was found that the lymph effused frequently caused the matting together of surrounding parts, and especially the adhesion of portions of intestine.

---

## NOTES OF TWO CASES OF SYPHILITIC HEMIPLEGIA.

BY G. H. PHILIPSON, M.A., M.D., CANTAB.; F.R.C.P., LOND.

PHYSICIAN TO THE NEWCASTLE-UPON-TYNE INFIRMARY, ETC.

THE present paper is in illustration of the proposition made in the former communication on syphilitic paraplegia, viz., "that brain paralysis, connected with syphilis, frequently occurs."

CASE I.—A woman, aged 25, single, domestic servant, from South Shields, was admitted into the Newcastle-upon-Tyne Infirmary, under my care, January 17th, 1878, suffering from hemiplegia of the right side.

The contour of the face was irregular, the left angle of the mouth being higher than the right; the right side of the face was smooth, unwrinkled, and wanting in expression; the tongue upon being protruded was twisted slightly to the right; the mouth was drawn to the left; the right side of the palatine arch was lower than the left; the right masseter and right temporal muscles acted less strongly than the corresponding muscles on the left side; the grasp of the right hand was less strong than the left; and in walking, the right leg was dragged. At times, the right arm and the right leg trembled. The sensation was not different in the right and left upper and lower extremities. Articulation was thick, slow, indistinct, and was performed with some difficulty.

From her friend, who accompanied her to the Infirmary, it was ascertained that in October, 1877, she had suffered from a fit, in which she fell to the ground, and remained unconscious for fully half an hour. Afterwards, it was noticed that she had lost the power of moving the right arm and the right leg. Her friend also stated that, about twelve months ago, she had suffered from swelling of the throat and general eruption, and that she had left her place in consequence.

On the left side of the chin there was a cicatrix, and the glands in the neck were hard and indurated. She complained of headache and muscular pains, especially at night.

She had menstruated the week previous to her admission. The pulse was 86, regular, but feeble. The heart sounds, base and apex, were without murmur, but were feeble. Ophthalmoscopic examination gave negative signs. The urine was muddy, from deposit of pale urates, of s. g. 1030, slightly acid, and contained neither albumen or sugar. She was pale, anæmic, and the muscles were flabby.

She was ordered a saline purge, and as the paralytic condition was suspected to be of syphilitic brain lesion, ten grains of the

iodide of sodium, in one ounce of water, three times each day. The diet to be milk and beef tea.

January 23rd. She appeared more heavy, and answered questions with difficulty and uncertainty. It was noticed that there was internal strabismus of the left eye. The pulse was 96, more feeble.

January 26th. She was more lethargic, and had passed her urine and fæces into the bed. For the past two days, had swallowed with difficulty, and the nurse had been obliged to feed her with the spoon. During sleep, it had been noticed that her cheeks and lips were blue. The sensation of the right leg was less perfect than the left.

The following diagnosis was given, as to the brain lesion : that there was a tumour, syphilitic in nature, situated at the base of the brain, possibly in the pons or medulla oblongata, and in addition, centric softening of the left corpus striatum and of the optic thalamus.

January 30th. The lethargy has increased. Now not able to obtain any coherent answers to questions. Has a difficulty in protruding the tongue. The right leg and the right arm have become rigid. The pulse was 120, very feeble.

The iodide of sodium was increased to twenty grains, and a fly blister was applied to the nape of the neck.

February 2nd. Quite unconscious, lying on back, low down in bed.

The pulse was 130, very feeble ; the respirations were 38, short and hurried. Has no power of swallowing. The left pupil was slightly smaller than the right. The internal strabismus of the left eye has continued.

She was ordered beef tea and brandy enemata, containing thirty grains of iodide of sodium, every three hours.

The prostration gradually increased, and she died comatose on February 4th.

*Post mortem* examination, nineteen hours after death, conducted by Dr. Byrom Bramwell, the Pathologist of the Infirmary.

The calvarium was natural. The superior longitudinal sinus contained a yellow recent clot. The torcular herophili was filled with black clotted blood. The surface of the convolutions were tolerably natural. There was a small amount of effusion under the arachnoid. The brain weighed 2 lb. 14 oz. At the lower surface of the pons, especially on the left side, the nervous tissue was indurated near the surface, but deeper, of a grayish-yellow colour. This change of colour was partly due to the deposit of lymph, and partly to softening of the nervous tissue. The basilar artery, as it crossed over the softened portion of the pons, was softened in its external coat. The left fifth, sixth, and the

seventh cranial nerves sprang very close from the softened portion of the pons. In the posterior part of the left corpus striatum there was a small patch of softened tissue similar in colour to that in the pons. There existed a small quantity of fluid in the lateral ventricles, the ependyma of which was thickened. On making a section through the pons, the softening was seen to occupy a considerable part of the left half and a small portion of the right half.

The heart was healthy, and weighed 72 oz. The lower lobes of both lungs were congested, especially the left. The right lung weighed  $10\frac{1}{2}$  oz., and the left lung  $14\frac{1}{2}$  oz. The liver was somewhat yellowish in colour, and was atrophied. It weighed 2 lbs.  $15\frac{1}{2}$  oz. The gall bladder was distended with thick, black bile. The kidneys were both markedly congested, the divisions between the cortical and the pyramidal portions being very strongly marked. The capsule was adherent, the surface was smooth, the stellate veins were very strongly marked. The right kidney weighed  $3\frac{1}{2}$  oz., and the left 4 oz. The spleen was soft, but otherwise normal, and weighed 4 oz. The uterus and ovaries were natural.

Although there was wanting in this case precise information as to the syphilitic infection, yet, from the age of the patient, the history of the swelling of the throat, the occurrence of an eruption afterwards, the cicatrix in the chin, the enlargement and induration of the cervical glands, and the evolution of the symptoms, there was good reason for the assumption that the paralytic condition was syphilitic in nature. The appearances found at the autopsy were in confirmation of this supposition.

Concerning the part of the brain affected, from the internal strabismus of the left eye, the difficulty in deglutition and the partial asphyxia during sleep, it was inferred that the lesion was situated near the floor of the fourth ventricle, in all probability in the pons varolii or medulla oblongata, near the deep connections of the sixth, seventh, and eighth cranial nerves. This conjecture, also, was corroborated on autopsy.

The value of this case, clinically, is, as an example, that death may be the consequence of syphilitic lesions of the encephalon, when, being circumscribed, they occupy a part, as the pons varolii, the integrity of which is essential for the maintenance of life.

**CASE II.**—Thomas B., aged 35, married, tailor, residing at Birtley, county of Durham, was admitted into the Newcastle-upon-Tyne Infirmary, under my care, December 20th, 1877, suffering from hemiplegia of the left side.

His wife stated that he had been ill altogether for fifteen months, that for six weeks he had been unable to follow his

employment, and that one week previous to his admission, he had complained of a trouble in his head, of difficulty in speaking, and that upon the following morning, when he was going down stairs, he fell, was insensible for two hours, and upon regaining his consciousness, it was noticed that he was unable to move his left arm and his left leg, and that his face was twisted.

When addressed, he was unable to return a coherent answer, and broke out into inordinate laughter. The mouth was drawn to the right side; the tongue, upon being protruded, was drawn slightly to the left side; the left eyelids were not closed so tightly as the right; the left arm was unable to be raised, and in walking he dragged his left leg. Sensation, as far as could be ascertained, was unimpaired. There was involuntary passage of urine and fæces. The pulse was 108, regular,, but small. The heart sounds were normal. The tongue was thickly coated, and the breath was very foul.

He was ordered to have the magnesia and rhubarb mixture, and as diet, milk and beef tea.

December 23rd. Quite sensible; speech more distinct. Complains of pain in various parts of the body, especially in the muscles, much worse at night. Able to retain and to pass urine normally. When examined, the urine was found to be pale in colour, acid, of s. g. 1029, and without albumen or sugar.

On the scalp, a cicitrix was noticed. The tibiæ were irregular. The fauces were of a brownish red colour.

When interrogated, respecting previous syphilis, stated that about two years ago, in an act of indiscretion, he had contracted syphilis, which was followed by secondary eruption.

He was ordered ten grains of iodide of sodium, in an ounce of water, three times each day.

December 27th. The improvement has continued. Speech much more distinct. Less pain in head.

December 31st. Articulation much improved. Able to move left leg, also left arm, but the latter less so than the former. Has now complete control over the bowels. The iodide was increased to twenty grains.

January 7th, 1878. Able to walk across ward by himself, and without the aid of a stick. The arm has recovered, also the leg. By his own desire, he was made an out-patient.

On February 6th, 1878, he presented himself at the out-patient department, and exhibited a great improvement. The face was very little twisted; the tongue was protruded straight; he was able to place the left arm upon his head, and to walk with only a slight halt. He stated that he had not experienced any pain in his head or limbs, since his discharge, and that his memory was good.

This case, in comparison with the former one, exhibits a very close resemblance, in its etiology, the order of the succession, and the character of the symptoms, with the exception of the implication of fewer of the cranial nerves, the inference being justified that the lesion was similar in nature, that of softening, but limited to the corpus striatum and the optic thalamus, on the right side.

From the consideration of the two cases, the following propositions are deducible :—

That syphilis, when localised in the encephalon, is to be regarded as a serious disease, especially on account of the importance of the functions involved.

That the symptoms of importance are the intense cephalalgia and muscular pains, persistent and obstinate, with nocturnal paroxysms.

That the age of the individual, the morbid antecedents, and the evolution of the disease, are very different to what is met with in tubercle, cancer, or fibrous tumours.

That syphilitic hemiplegia has not the sudden onset nor the stability of hemiplegia, symptomatic of cerebral hæmorrhage or of softening, succeeding to obliteration of an artery.

That syphilitic hemiplegia resembles syphilitic paraplegia, in a changeableness of the symptoms, and in the motor paralysis being unaccompanied by sensory paralysis, but associated with muscular nocturnal neuralgia.

## CASES OF INTRA-CRANIAL TUMOUR.

By BRYON BRAMWELL, M.D.

*(Continued from page 112.)*

CASE VIII.—*Female, æt. 20. Headache ; vomiting ; double optic neuritis with perfect vision : Relief under iodide of potassium and croton chloral : Convulsion : Death. Large tumour pressing upon and causing extensive atrophy of the inferior half of the right ascending frontal and right ascending parietal convolutions, and the posterior half of the right inferior frontal convolution.*

M. D.—, æt. 20, single, shop girl, was admitted on January 5th, 1877, complaining of headache, vomiting, and giddiness.

*Previous History.*—When nine years of age she fell and hurt her head. The injury was a severe one, and was followed by vomiting. With this exception she has never been laid up until the present attack. Three years ago she began to suffer from headache. Eight months ago the headache got worse, and she vomited occasionally. Two months ago she was obliged to give up her situation. She has never had any fits, but has more than once tumbled off her chair, in consequence, she thinks, of a giddy feeling in the head. She has only menstruated once, and that was two years ago. She knows no cause for her illness.

*The Family History* is good.

*Condition on Admission.*—She is a well-developed and well-nourished girl ; she seems intelligent, but her friends state that she is very much quieter and duller than she used to be. The face at times has a dusky congested hue. The eyes are unusually prominent, but have always been so. There is no enlargement of the thyroid, and no palpitation. She complains of severe headache, generally worse at night. The pain is referred to the forehead and vertex. There is no suspicion of syphilis.

*Special Senses.*—*Sight.*—The pupils are equal, and moderately contracted. Sight is perfect, she can read with ease the smallest type. On ophthalmoscopic examination, marked optic neuritis is seen in both discs ; the veins of the fundus are especially large and tortuous ; the arteries are obscured in places at the margins of the discs. *Hearing.*—The skull sounds are not heard in the left ear. *Smell* is imperfect in both nostrils, especially so in the right. (This, I think, was due to the coryza, which was produced by the large doses of the iodide.) *Taste* is natural.

*Speech* is natural.

There is no trace of paralysis. She has never had a fit. (Her friends did not consider the giddy sensations and tumbles, mentioned above, fits.) The *reflex functions* are normal. She has had several

rigors lately. There has never been any discharge from the nose, ear, or other part of the skull.

The *temperature* is normal.

The *circulatory, respiratory, digestive, integumentary, and urinary systems* are normal.

The *treatment* consisted in the administration of full doses of iodide of potassium, and of anodynes, when required, to relieve pain; croton chloral, ten grains twice or thrice a day, suited best.

#### PROGRESS OF THE CASE.

On *January 18th* and *19th* the headache was intense, and she frequently vomited.

On *January 25th* she was very much easier—indeed, she felt so much better that she wished to go home. The improvement continued until *February 5th*, when the headache returned.

On *February 6th*, my clinical clerk, Mr. Tait, who was called to see her at 1.30 a.m., found that she had just died in a convulsion.

The *Autopsy* was made eleven hours after death. The head only was examined.

The scalp was natural. The lower part of the right parietal bone, the inferior frontal subdivision of the right frontal bone, and the upper part of the squamous portion of the right temporal bone were reduced to half their normal thickness. The dura mater was unadherent to the bone, but was firmly attached to the subjacent membranes in the inferior frontal and inferior parietal areas on the right side. On removing the dura mater, a large tumour was seen in these regions. It seemed to spring from the commencement of the right sylvian fissure, and had destroyed the posterior half of the inferior frontal convolution, the lower half of the ascending frontal convolution, the lower half of the ascending parietal convolution, and the outer half of the island of Reil. It had also invaded the superficial surface of the posterior half of the middle frontal convolution, the anterior part of the supra-marginal convolution, and the anterior part of the superior sphenoidal convolution. The tumour measured from before backwards 3 inches, from above downwards 3 inches, from without inwards  $1\frac{1}{2}$  inches.

The surface of the tumour where it was unadherent to the dura was of a reddish colour, and had a striated granular appearance. It seemed to be made up of delicate fibre bundles. At its centre it was an inch and a half thick; at its margins it was thinned off to a delicate striated layer. The margins of the tumour seemed to be gradually applying themselves to and invading adjacent convolutions. The colour of the section of the tumour was a dark purple. It was granular in appearance, and very soft and friable. After hardening in spirit it could be separated from the subjacent brain

substance, and was found to be surrounded with a delicate capsule of fibrous tissue. Several large vessels passed into and out of the tumour.

On *microscopical examination* it was found to consist of bundles of fibre cells, granular protoplasmic material, and numerous large oval nuclei. The fibre cells contained one, rarely two, large oval nuclei.

#### REMARKS.

The case just related, and the one which I shall next describe, are striking illustrations of the immense diagnostic value of the ophthalmoscope. I have already remarked on this point, you must pardon me, therefore, for again saying that without a knowledge of the condition of the fundus, it would have been impossible in either case, when first seen, to have diagnosed an intra-cranial tumour, and that in both cases, had I trusted to the condition of vision, and had I not been in the habit of making a *routine* examination of the optic discs, I should most certainly have given a favourable prognosis.

In the case of C. D., the tumour was of large size, and had caused extensive destruction of nerve tissue in regions which are now pretty generally acknowledged to be motor. The absence of any paralysis is explained by the fact that the tumour was of slow growth. There is no fact in cerebral pathology better established than this—that a large portion of the motor cerebral cortex, or of the fibres passing from the motor centres in the cortex to the corpus striatum, may be destroyed without any obvious paralysis resulting, provided that the destruction be a slow and gradual process. The *rapidity of the destruction*, then, is a factor of the very first importance in the production of symptoms. When the destruction is rapid, as in cases of apoplexy, a small lesion will give rise to symptoms. When the destruction is slow a large lesion may give rise to no obvious symptoms. In this fact we have a marked difference between a “*destroying*” and a “*discharging*” lesion. The latter, however small, of necessity gives rise to striking symptoms—*i.e.*, convulsive seizures.

The absence of paralysis in those cases in which a cortical motor centre is destroyed is explained by the *Theory of Compensation*—“*Loi de Suppléance*” of Vulpian—which supposes that other neighbouring motor centres in the same hemisphere, or motor centres in the opposite hemisphere, take on the action of the one which is destroyed.

The absence of obvious paralysis when a motor centre is destroyed also gives us a clue to the mode in which muscular movements are represented in the motor centres, as the following quotation from Dr. Hughlings Jackson’s *Clinical and Physiological Researches on the Nervous System* shows:—

"Then it may be said that one convolution will represent only the *movements* of the arm, another only those of speech, another only those of the leg, and so on. The facts above stated show that this is not the plan of the structure of the nervous system. Thus to take an illustration, the external parts  $x$ ,  $y$ , and  $z$  are each represented by units of the corpus striatum. But the plan of representation is not that some units contain  $x$  largely only, as  $x^3$ , others  $y$  largely only, as  $y^3$ , but that *each* unit contains  $x$ ,  $y$ , and  $z$ ,—some, let us say, as  $x^3$ ,  $y^2$ ,  $z$ , others as  $x^2$ ,  $y^3$ ,  $z$ , &c. When we come to the still higher evolution of the cerebrum, we can easily understand that, if the same plan be carried out, a square inch of convolutions *may be wanting* without palsy of the face, arm, and leg, as  $x$ ,  $y$ , and  $z$ , are represented in other convolutions, and we can also easily understand that *discharge* of a square inch of convolutions put in excessive movement the *whole* region (face, arm, and leg), for it contains processes representing  $x$ ,  $y$ , and  $z$ , with grey matter in exact proportion to the degree of complexity."\*

Again, "A region of the body is not permanently paralysed when a portion of the brain representing it is destroyed, because the neighbouring parts also represent the very same region. This is what we should expect on the Principle of Evolution; for the higher the centre the greater the number of *different* movements and impressions represented in it. This implies a greater number both of nerve fibres and cells. Now, of course, the more fibres in the centre the less loss of movement will result from destruction of part of it; and of course the more ganglion cells the more over-movement from discharge of an unstable part of it."†

But not only do we find obvious paralysis absent where the motor cortical centres or the white matter of the hemispheres are slowly destroyed, but as the remarkable case which I shall next relate shows the greater portion of the corpus striatum itself may be destroyed without any obvious paralysis. The absence of paralysis in that case is also to be explained by the same theory of compensation. It must, too, be remembered that in young subjects processes of repair and compensation are more efficiently established than in the fully formed being, and that in young subjects movements are much more automatic, much less highly specialised, than in the adult.

I may perhaps also note the fact that the right lower frontal convolution and the right island of Reil were considerably damaged without any affection of speech.

The circumstance that the skull sounds were not heard in the right ear is also a point to which I wish briefly to refer. Nothing in the auditory nerve nor in the internal ear was found to

---

\* Page xv.

† Page xvii.

account for this condition. It will be observed, however, that the bone corresponding to the position of the tumour was thinned. The question arises whether this abnormal condition of the bone could account in any way for the non-conduction of the skull sounds. I have unfortunately no note as to the exact part of the right side of the skull from which the skull sounds failed to be heard. The point is, however, worth noting, for in other cases of intracranial tumour I have remarked the same fact, viz., that the patient professes not to hear the skull sounds, the aerial vibrations being appreciated as usual. It is just possible that in this alteration of the skull sounds we may have a localising symptom of some importance.

**CASE IX.**—*Boy æt 5. Headache; vomiting; optic neuritis and good vision; voracious appetite; good condition of general nutrition phosphatæ; puffy face and eyelids: Complete temporary relief under iodide and bromide of potassium: Right internal strabismus: general convulsions: gradual and increasing mental apathy: excessive sleepiness: optic atrophy: severe general convulsions, followed by left sided hemiplegia, coma, and death: Six scrofulous tumours in various parts of the cerebral hemispheres: left corpus striatum almost entirely destroyed.*

J. W., æt. 5, was admitted on February 27th, 1877.

*Previous History.*—His parents stated that his illness commenced three months ago with headache and vomiting. The vomiting was slight, and only occurred once or twice. The headache was generally worse at night. For the past few weeks it has been so bad that he has cried for the greater part of the night. They know no cause for his illness. Eighteen months ago he had a severe attack of scarlet fever. He had, however, quite recovered from it months before the commencement of his present illness. Two years ago he fell over the stairs and injured his head. There are no signs of congenital syphilis.

The *Family History* is good.

*Condition on Admission.*—He is a sharp, intelligent, and lively boy. Very active and well nourished. The face is pale and puffy about the eyelids. The exterior of the skull is natural. The headache only comes on at night, and is referred to the frontal region. *Special senses.*—The pupils are equal and dilated. Sight is good, but marked optic neuritis is seen in both eyes. The other special senses are natural.

There is no trace of paralysis. He has never had a convulsion. The urine contains phosphates, but no albumen. The appetite is voracious; he bolts his food, and eats everything that comes before him.

The left wrist joint is swollen, and evidently in a state of

scrofulous degeneration. It is not painful, but is slightly tender on pressure. It has been in the same condition for several weeks.

The pulse and temperature are normal.

The *digestive, circulatory, and integumentary* systems are normal.

The *respiratory* system is normal. (This statement needs qualification. There was no cough, no shortness of breath. The upper part of the lungs were carefully examined, as I suspected the intra-cranial disease to be tubercular. The bases must not have been examined, for the large lesion found *post-mortem* could not have escaped detection.)

The *diagnosis* was an intra-cranial tumour. The position of the tumour could not be ascertained, as there were no localising symptoms. From the associated condition of the wrist joint, and from the age of the patient, it was thought to be scrofulous.

*Treatment.* — A mixture, containing iodide and bromide of potassium, was prescribed. A splint was fitted to the left wrist, and tincture of iodine was applied over the swollen part.

#### SUBSEQUENT PROGRESS OF THE CASE.

On *March 10th* it was noted: He is apparently quite well. There has been no headache for several nights. The nurse expressed her astonishment that I did not send him home. He continued to be quite well until *March 20th*, when an internal squint of the right eye was noticed. The eyeball was turned inwards and slightly upwards. The squint was increased by looking at distant objects. The dose of iodide was increased to gr. x.

On *March 26th* it was noted:—For some days he has been dull and heavy, and has slept a great deal. The left wrist joint was to-day opened under antiseptic precautions. A quantity of thick cheesy pus was evacuated.

On *April 5th*, at 4 p.m., he had a severe convulsion. Both sides of the body were affected, the left more powerfully than the right. The convulsion continued more or less constantly for three hours.

On *April 6th* he looked pale, but seemed otherwise all right. The squint was less marked. On *April 20th* it had disappeared.

For the next two months he remained *in statu quo*, making no complaint, eating voraciously, and sleeping too constantly. He gradually became more dull and stupid. His eyesight failed, and, on ophthalmoscopic examination, it was seen that optic atrophy was commencing. All this time the body continued to be well nourished, and there was not now, nor at any subsequent period until after the final convulsion, the slightest trace of paralysis.

On *June 30th* an herpetic eruption appeared underneath the left eyelid.

On *August 4th* he vomited two or three times.

On *August 17th* he took a series of convulsions. The spasms,

which lasted three or four hours, chiefly affected the left side. When the convulsions passed off, the left arm and leg were paralysed.

The patient remained in a semi-comatose condition until August 21st, when he died at 11.30 p.m.

The *post mortem* was made nineteen hours after death. The body was well nourished. There was nothing noteworthy in the external appearances.

*Head.*—The bone and membranes were natural. The convolutions were greatly flattened, the sulci effaced. The exterior of the brain was otherwise natural. The brain weighed 2 lbs. 14½ oz.

On cutting into the cerebral substance nodules of new growth were found in the following situations:—

1st. A pyriform nodule, size  $\frac{3}{4}$  inch by  $\frac{1}{2}$  inch, in the extremity of the first left frontal convolution where it turns over to become the supra-marginal convolution.

2nd. An irregular shaped nodule measuring  $1\frac{1}{4}$  inch in length by  $\frac{3}{8}$  of an inch in breadth in the left gyrus fornicatus at the junction of its middle with its posterior third.

3rd. An irregular nodule larger than the former in the corresponding part of the right gyrus fornicatus. This nodule extended upwards through the gyrus fornicatus, and the supra-marginal convolution to within a quarter of an inch of the vertex of the hemisphere.

Nodules 2 and 3 were joined by a connecting band of new growth, which rested upon the posterior part of the corpus callosum.

4th. An oval nodule,  $\frac{3}{4}$  of an inch in length by  $\frac{1}{2}$  inch in breadth, in the tip of right occipital lobe.

5th. An irregular nodule,  $\frac{5}{8}$  of an inch in length by  $\frac{5}{8}$  of an inch at its broadest point, in the angular gyrus of the right side.

6th. A large round nodule measuring  $1\frac{1}{4}$  inch in diameter occupied the position of the left corpus striatum—which it had almost entirely destroyed.

All the nodules of new growth presented the same character. They were of a yellowish colour, very firm in consistence, to the naked eye apparently containing a good deal of fibrous material. None of them presented any trace of softening. They were separated from healthy brain tissue of an exceedingly narrow line of softened material. After the preparation had been immersed for some days in spirit, the nodules of new growth could be easily separated from the sounding brain substance. On microscopical examination they were found to present the usual characters of the tubercular cerebral tumour:—Consisting of numerous small round and angular corpuscles, granular and molecular matter, and fibrous tissue. The line of softened material between the nodules and the brain tissue proper contained numerous blood vessels. The fibrous element in the nodules was greater than is usually present in this form of growth.

The vascularity of the brain seemed normal.

The ventricles were normal.

The cerebellum was normal.

In the lower lobe of the left lung there was a large dry caseous mass. Some grey tubercles were scattered through the rest of the left lung. A few also were situated in the apex of the right.

The peritoneum, intestines, and other organs of the body were normal.

The left wrist joint was in a state of scrofulous degeneration.

#### REMARKS.

The great point of interest in this case is the fact that the greater part of the left corpus striatum was destroyed without any resulting paralysis. I have already commented on this in my remarks on the previous case.

The other nodules of new growth were situated in regions which experimental investigations have shown to be non-motor.

According to Ferrier, a lesion of the anterior part of the frontal lobe would be attended with mental apathy, dulness, and a tendency to sleep. An opinion which is confirmed to a great extent by clinical observations on the human subject.

In this case the lesion in the frontal lobe was small, and it would be exceedingly rash, I think, considering the number and extent of the other lesions, to attribute the mental lethargy and sleeplessness, which were a marked feature in the latter stages of the case, to it alone.

That Ferrier's conclusions as to the functions of the frontal lobes are correct, however, I believe, and they are confirmed by cases iii. and viii. already reported in this series.

According to Ferrier the angular gyrus is the centre for vision of the opposite side. In this case in which there was a lesion in the right angular gyrus vision was considerably affected in the later stages of the case. The loss of vision, however, resulted from the optic neuritis, and did not therefore depend upon the lesion of the supposed visual centre.

Other interesting points in the case are :—

1st. The voracious appetite, I have already (*see* case iv. p. 86) referred to, the opinion of Drs. Lawson and Bevan Lewis and that this is an early symptom of intra-cranial tumour, and to Ferrier's observations on loss of appetite and lesions of the occipital lobes.

2nd. The general good condition of the patient, associated as it was with the presence of tubercles in the lungs, and the extensive cerebral tubercular lesions. The absence of wasting was probably due to—

(a) The absence of fever.

(b) The apathetic condition of the patient. The fact that there

was no pain in the diseased wrist joint was probably owing to the same cause.

(c) The good appetite and healthy condition of the digestive organs.

3rd. The fact that the cerebellum, which is the most frequent seat of cerebral tubercular deposits was healthy, and the absence of any softening in the cerebral lesions.

4th. The great weight of the brain ( $48\frac{1}{2}$  ounces). Quain and Sharpey state that the average weight of the brain in males from four to seven years old is 40·23 ounces. The heaviest of twenty-seven brains which they weighed at this age was 49·8, the lightest 24·5.—*Quain's Anatomy*, vol. ii. p. 569.

The next three cases are of much less interest, inasmuch as there was no autopsy.

**CASE X.**—*Male, æt. 37. Intense headache ; vomiting ; double optic neuritis ; phosphaturæa : general muscular weakness ; giddiness. Unrelieved by large doses of iodide of potassium. Death. No autopsy.*

L. H., æt 37, married, glazier, was admitted on April 20th, 1877, suffering from intense headache, vomiting, dimness of vision, and general debility.

*Previous History.*—He has always been healthy and steady. His present illness commenced five months ago, and was brought on, he thinks, by exposure to cold. Has never received any head injury, and has not had syphilis.

*Family History.*—Good.

*Condition on Admission.*—The patient, who is very thin and emaciated, is unable to stand or even to sit up in bed, because of giddiness and weakness. He feels the weakness all over his body, as much in his arms as in his legs.

His mind is clear, his intelligence good, memory impaired. He sleeps well when not in pain. His chief complaint is headache; the pain is referred to the forehead and vertex; it is not worse at night. There no tender spot on the head. He frequently vomits; the vomiting is generally worse first thing in the morning, and is aggravated by movement. *Sight* is dim; the pupils are moderately dilated, the left slightly larger than the right. Most marked optic neuritis is seen in both eyes. He complains of noise in the head, but is unable to refer it to any particular spot. Nothing is heard on auscultating the cranium. The other special senses are normal.

*Sensibility* of all sorts is normal.

There is great muscular weakness, but no paralysis. The muscles are very much wasted. Co-ordination seems natural.

The *urine* contains large quantities of phosphates.

The *tongue* is large and foul, the appetite bad, the bowels costive.

There is no blue line on the gums, nor other signs of lead impregnation.

The *pulse* is 84. The *temperature* normal.

The *other organs* are all normal.

*Treatment*.—He was treated by full doses of iodide of potassium, opiates, purgatives, mercurials, and the application of ice-bags to the head.

*Progress of the Case*.—He made no improvement, and getting dissatisfied with hospital, discharged himself during my temporary absence from Newcastle. He died a few days afterwards, and no *post mortem* was obtained.

CASE XI.—*Headache; vomiting; double optic neuritis; unilateral convulsions, beginning in the fingers of the left hand and limited to the left arm and left side of the face; phosphaturia; tenderness over the upper cervical vertebræ and retraction of the head. Abscess on the top of left side of head. Unrelieved by iodide of potassium; coma; death. No autopsy.*

W. S——, æt. 14. Was admitted on January 12th, 1877, suffering from headache, vomiting, and double optic neuritis.

*Previous History*.—When three months old he suffered from convulsions. With this exception he enjoyed good health, until three months ago, when his present illness commenced. He first suffered from red painful lumps on the shins; the lumps appeared suddenly, and then disappeared in a few days (erythema nodosum.) Two months ago an abscess formed on the top of the head, left side; it has discharged every now and again since. Since the appearance of the abscess he has suffered from headache. One evening, about five weeks ago, he had an "attack of spasms" in the left arm and left side of the face. The convulsive twitching commenced in the fingers, and then spread up the arm to the face. It lasted about three quarters of an hour. He was not unconscious. When it passed off he found that he had lost the use of his left arm. Speech was not affected. The twitching has returned once; it was again confined to the left arm and left side of the face. He has several times vomited.

*Family History*.—His mother died, æt. 40, of cancer. His father is alive and well. There are two other children, both healthy.

*Condition on Admission*.—He is a well-grown, intelligent boy. He constantly suffers from severe headache. The teeth are syphilitic, though not to an extreme degree. The conjunctivæ are injected; the pupils contracted. Sight is good, but there is marked optic neuritis in both eyes. All trace of paralysis has disappeared. Speech is natural. The bowels are costive; the urine contains phosphates.

At the top of the head, slightly on the left side, there is a small

abscess. On probing the cavity of the abscess no dead bone is to be detected.

He complains of pain and tenderness over the upper cervical vertebræ. Movement increases the pain, the head is, therefore, kept rigid. It is slightly retracted. On application of the hot sponge test a burning sensation is complained of over the upper cervical region.

The *pulse* and *temperature* are natural.

The other organs are natural.

*Treatment*.—Full doses of iodide of potassium and anodynes were prescribed.

*Progress of the Case*.—He continued *in statu quo*.

On January 16th he was suddenly and somewhat surreptitiously removed by his father. On the morning of removal the question of trephining was to have been considered.

He continued to suffer from severe headache, and died in a comatose condition a few days afterwards. A *post-mortem* examination was obstinately refused, in spite of the request of his medical attendant, Dr. Gibb.

*Remarks*.—In the absence of a *post-mortem*, the case is comparatively valueless. All the symptoms of intra-cranial tumour were present, but the diagnosis was not absolutely certain. The case was evidently complicated with meningitis, and it may be thought that the symptoms were due entirely to that cause.

CASE XII.—Male, æt. 49. *Severe injury to the head twenty years before admission. Epileptiform convulsion ten years before admission. Headache for seven years; giddiness; fainting fits, followed by vomiting; some symptoms of alcoholism; optic discs somewhat hazy, veins of fundus dilated. Discharged relieved after three weeks' treatment. Re-admission ten days' after discharge; left hemiplegia; double vision; slight nystägmus. Cured by iodide of potassium.*

F. J——, æt. 49, a tailor, was admitted on March 30th, 1876, complaining of vomiting, headache, and giddiness.

*Previous History*.—Twenty years ago he received a severe injury to the back of the head. He enjoyed excellent health until ten years ago, when he had an epileptic fit. For the past seven years he has suffered every now and again from headache. There has been no second fit. His present illness commenced four months ago. He has always been steady, and has not had syphilis.

*Family History*.—His father and one brother died of phthisis.

*State on Admission*.—He is a short, stout man; his expression is anxious, the face pale. His intelligence is good, but his memory bad. He is very giddy, especially when he turns

his head to the left side or when he stoops. He complains of great pain in the forehead and occiput. The pain is not constant, nor is it worse at night. He sleeps badly, dreams a great deal, often thinking he sees animals creeping about him.

*Sensibility* is natural. During the past winter, the right arm and right leg felt hot, the left being cold.

*Hearing, taste, and smell* are natural. *Sight* is fairly good, the pupils are equal and of medium size. On ophthalmoscopic examination the appearances are suggestive of old optic neuritis. The edges of the disc being somewhat hazy and ill-defined, the veins of the fundus large, and here and there accompanied by white streaks.

*Speech* is natural.

There is no paralysis. The gait is unsteady, he sways from side to side every three or four steps. The muscles are all well developed.

The *reflex functions* are normal.

He states that every morning, for the past three weeks, he has fainted away. The attack comes on about seven o'clock. He first feels giddy, then faints and becomes unconscious. When he comes to himself he vomits.

The appetite is poor, the tongue foul and tremulous, the bowels costive. The urine contains phosphates.

The radial pulse is 72. The temperature normal.

The other organs are normal.

*Diagnosis*.—In spite of the persistent denial of the patient, I was inclined to think the case one of alcoholism.

*Treatment*.—Free purgation, the application of ice bags to the head when the headache was severe, and bromide of potassium, half a drachm three times daily, were prescribed.

*Progress of the Case*.—On *April 10th*, he was very much better. There had only been three attacks of faintness since admission. On *April 15th*, he discharged himself, saying he felt quite well. The tongue was clean, though still tremulous, the headache relieved, the gait still slightly unsteady.

*Re-admission*.—On *April 25th*, he was brought back to hospital, looking very ill. He stated that on April 20th he suddenly lost his eyesight, and experienced loss of power in the left arm and leg.

*Condition on re-admission*.—There was very decided, though not total, loss of power in the left arm and leg. *Sensibility* to pain and touch was natural. He complained of a prickling sensation over the the left side of the body. He felt the left leg hot, the right cold. Objects in front of him and to the right side were seen double. Objects in front were seen placed one above the other. Objects on the right side were on the same horizontal plane. There was slight nystagmus, the eyeballs rotating from right to left. I was unable to detect any strabismus. The pupils were

equal and contracted. The condition of the fundus oculi was the same as before.

The bowels were obstinately constipated, and he has a good deal of difficulty in making water. The urine had, on two occasions, to be taken off by catheter.

The *diagnosis* was now modified. The new symptoms, when taken in conjunction with the previous course of the case, pointing, in my opinion, to the presence of an intra-cranial tumour. The tumour was probably situated at the base, far back on the right side.

*Treatment*.—An active anti-syphilitic treatment (iodide of potassium grs. xxx. thrice daily) was at once adopted.

*Progress of the Case*.—For the first three weeks he remained *in statu quo*, frequently suffering from headache, vomiting, and cramp in the left leg and thigh.

On *May 26th*, the headache was intense; the general condition of the patient was better; vision was natural.

On *July 6th*, he discharged himself, saying he felt quite well. All paralysis had disappeared. There had been no giddiness, vomiting, nor headache for a month.

On *December 14th*, he came, at my request, to see me. He looked and felt perfectly well. There had been no relapse of any sort. For three months after his discharge he had regularly taken the iodide.

CASE XIII.—*Woman, æt. 63. Fit. Fall down stairs; headache; rigors; no paralysis, but general muscular weakness; congestion of right optic disc, but no œdema; vomiting. Cardiac disease. Bronchitis. Convulsion and sudden death. Autopsy:—Mitral stenosis; round sarcoma the size of a green gage plum springing from the dura mater and indenting the left lobe of the cerebellum; remains of a small hæmorrhage in the left corpus striatum; multilocular cyst of right ovary.*

A. C——, æt. 64, widow, was admitted on September 28th, 1875, complaining of pain in the left side, shortness of breath, and general debility.

*Previous History*.—She was unable to give any account of herself. The people who brought her to the Infirmary stated that she had had “a stroke” and had fallen down stairs, some ten days previously.

*Condition on Admission*.—She is very short of breath. The face is dusky, the conjunctivæ swollen. The feet and legs are œdematous. She is very dull and stupid, can with difficulty be got to answer questions, and when she does speak one cannot depend on what she says.

She complains of headache, and frequently puts her hand up to her head. Every now and again she takes trembling fits, and

says she is very cold. She is unable to stand or get out of bed. There is no paralysis, but general muscular weakness, and loss of control.

She says she hears nothing with the right ear, and professes not to hear the skull sounds with either ear. Sight, she says, is good. With the exception of the sub-conjunctival œdema the eyes look natural. The pupils are equal and dilated. The veins of the fundus in both eyes are large and tortuous. The right disc is very much redder than the left, which is of a natural hue. There is no ischæmia papillæ.

The cardiac transverse dulness is increased. At the apex both cardiac sounds are short and valvular. There is no murmur. The pulmonary sounds are accentuated. The radial pulse is 96, weak and irregular. Bronchitic râles are heard all over the lungs.

The other organs are natural. No bruise or evidence of injury is to be detected on the left side where the pain is complained of.

*Progress of the Case.*—There was no change in the patient's general condition. She occasionally complained of headache, and often vomited. On October 21st she took a fit, when the House-Surgeon reached the ward she was dead. The right side had apparently been most affected, the fingers were firmly bent in to the palm, the hand flexed at the wrist joint.

*The Autopsy* was made thirty-six hours after death. The fingers of the right hand were still firmly flexed. The feet and legs were œdematous. There were no external marks of violence.

The scalp and skull cap were natural. On removing the brain a round white tumour the size of a green-gage plum was seen just beneath the tentorium on the left side. The tumour sprang from the dura mater and had deeply indented the left lobe of the cerebellum. There were no signs of softening nor inflammation in the nervous structures. A small hæmorrhage was found in the extra ventricular portion of the left corpus striatum. The hæmorrhage was evidently of some weeks' duration. The ventricles were normal. The arteries were slightly atheromatous. There was no embolism. The brain was otherwise normal.

There was well marked mitral constriction with the usual secondary changes in the right heart. The lungs were considerably congested. The right ovary was a beautiful specimen of cystic degeneration. The other organs were normal.

#### REMARKS.

In this case the presence of a tumour was not suspected during life. This was in part owing to the fact that the patient was unable to give any account of her feelings and sufferings. Viewed in the light of the *post mortem*, the symptoms were so far characteristic of a tumour of the cerebellum.

The next case is one of less value, inasmuch as the diagnosis has happily not as yet been verified by a *post mortem*.

CASE XIV.—*Pitman, æt. 18. Sudden giddiness and vomiting; headache; reeling gait; phosphaturia; no optic neuritis. Normal condition of hearing. Relieved by iodide of potassium. Discharged after forty-one days' residence in hospital. Epileptiform convulsion the day after his discharge. Improvement under bromide and iodide of potassium.*

G. F——, æt. 18, pitman, single, living at Winlaton, was admitted on 22nd March, 1877, complaining of giddiness, and consequent inability to walk.

*Previous History.*—The patient states that he enjoyed good health until seven weeks ago, when his present illness commenced. One day, when hungry, he began to smoke. He soon felt giddy and faint. For the next fortnight he suffered from headache, and every now and again felt giddy and faint. One day he vomited three times. He has been off work for a month, and is gradually getting worse. He has not felt any noise in his head. Has never had a fit, and has not experienced any numbness or loss of power. He has not had syphilis.

The *Family History* is good.

*Condition on Admission.*—He is an unusually strong well developed man. His facial appearance is natural. The pupils are equal and contracted. *Sight* is imperfect. The optic discs are natural. There is no paralysis of any of the ocular muscles. *Hearing*, with the areal and skull sounds, as tested by watch and tuning fork, are natural. *Taste* and *smell* are natural.

He feels giddy when he walks, swaying from side to side as if he were drunk. The giddiness is worse in the dark. There are, however, no signs of locomotor ataxia. *Tendon-reflex* is normal. He can stand firmly with his eyes shut. It is only when he attempts to move in the dark that he loses control over himself. When he leans his head backwards, he feels as if he would tumble backwards over. When he leans his head towards the left shoulder, he feels as if he would tumble towards the left. He can place his head in other positions without any abnormal sensation.

When he first took ill he used to think that objects were moving round him, and his eyes “ached so sore” that he had often to keep them shut. He has occasionally tumbled backwards over.

The *muscular system* is perfectly natural.

*Sensibility* of all sorts is natural.

The *reflex functions* are naturally performed.

The *liver* is of natural size, and the *other organs* of the body seem healthy.

The *urine* contains phosphates.

*Treatment.*—He was ordered half-drachm doses of iodide of potassium.

*Subsequent Progress of the Case.*—On *April 2nd*, the giddiness was somewhat less, and he walked better, but complained of pain in the head. He continued to improve somewhat, and on *May 3rd* he went home, saying he was better.

On *May 4th*, while standing still with his hands in his pockets, he felt a cramp-like sensation in the fingers of the left hand; he tried to pull the hand out of his pocket, but he was unable to do so; a numb feeling next extended up the arm to the head; he then fell backwards insensible; he remained insensible for twenty minutes; when he came to himself, he felt sick, but did not vomit. He does not know if he “worked in the fit.”

On *May 5th*, he took a second fit. It commenced in the same way; he was convulsed during the attack, and he foamed at the mouth.

On *May 7th*, he presented himself at the Infirmary. The physical signs were the same. He was ordered 15 grains of the iodide and 15 grains of the bromide of potassium three times a day.

On *July 16th*, it was noted “The patient has been much *in statu quo* since last report.” On Saturday last he had a severe convulsion, in which he bit the left side of his tongue. The fit commenced as previous ones with an aura in the fingers of the left hand. The dose of bromide was increased to thirty grains.

In *August*, he availed himself of an opportunity of consulting Dr. Geo. W. Balfour, of Edinburgh, who diagnosed a tumour of the cerebellum, and advised the administration of still larger doses of the bromide and the introduction of a seton to the back of the neck.

From August until the present time he has attended occasionally at the Infirmary. He is somewhat better, not having had any fit for several months; the headache is less frequent and less severe; the giddiness still continues, but is not so troublesome as formerly. There have been no fresh symptoms. The optic discs are now and always have been healthy.

